

**Aptech Certified**  
**Computer Professional**



**Programming Skills  
& Internet**



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## INTRODUCTION TO THE BOOK

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**This book contains the following modules**

- 1 Internet and Web Page Designing
- 2 Logic Building With C

The knowledge and information in this book is the result of a concerted effort of the Design Team, which is continuously striving to bring you the best and the latest in Information Technology. The process of Design has been a part of the ISO 9001 certification for Aptech - IT Division, Education Support Services. As a part of Aptech's quality drive, this team does extensive research and curriculum enrichment to keep it in line with the industry trends.

We will be glad to receive your suggestions. Please send us your feedback, addressed to the Design Head at Aptech's Corporate Office, Mumbai.

**Design Team, H.O. New Jersey USA**



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# **Internet and Web Page Designing**

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## INTRODUCTION TO THE MODULE

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The Internet has turned the world into a global village. With the advent of the Internet (or the Net as it is popularly called), distances and geographic locations are no longer barriers to communication.

Using the Net, it is possible to communicate across continents in the space of minutes; if not seconds. While earlier communications across the Net was primarily via email today there are interactive options available such as Chat. With chat it is possible to hold real time conversations with people across the globe.

The World Wide Web is the most popularly used component of the Web. It enables us to present information to a worldwide audience using formatted text, graphics and a range of multi-media options like sound and movies.

In this module, you will be introduced to the various components that make up the Net and also learn to design web pages using Hyper Text Markup Language – HTML

**Design Team, H.O. New Jersey USA**

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## CONCEPTS

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# CHAPTER INTRODUCTION TO INTERNET



## SESSION OBJECTIVES

*At the end of this session, the student will be able to -*

- Discuss what is the Internet
- Explain the Origin of the Internet
- Explain Client Server Basics
- Describe electronic mail
- Explain Telnet
- Discuss FTP
- Explain Archie
- Discuss Gopher, Jughead and Veronica
- Explain WAIS
- Discuss the World Wide Web
- Explain Search Engines
- Discuss HTML

## 1.1 Introduction to the Internet

"How is it possible that a person sitting in India can send a letter to America and get a reply within a few minutes?" It is possible because of the phenomenon called the Internet. (With the Internet and its supporting networks, the world is a local phone call away.)



(A network is two or more computers connected together which enables them to communicate and share data. The larger the network, the more facilities it has to offer.

(The Internet is the world's largest computer network.) The Internet or the Net is a network of networks, all freely exchanging information. It is also referred to as the Information Superhighway.

The Net has many uses like :

- ➡ Communication across continents through a local phone call.
- ➡ Access to information of any kind and for any purpose.
- ➡ Having discussions on any topic.

## **1.2 Origin of the Internet**

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(In the year 1969, the Department of Defence (DOD), U.S.A, built a network called ARPANET. ARPA stands for Advanced Research Projects Agency. The idea behind ARPANET was to enable sharing of data between various government-funded research centres. The centres included businesses and universities that were equipped with the latest computer technology at that time.

(The ARPANET started with just four computers on the network. It connected University of California at Los Angeles, University of California at Santa Barbara, Stanford University (also in California), and the University of Utah in Salt Lake City.

ARPANET became so popular that all the universities in the country wanted to join it. To meet the demand, ARPANET was converted into :

- ➡ MILNET, which was only for the military sites
- ➡ The new, smaller ARPANET, which had the non-military sites.

(By 1972, there were 40 different sites attached to ARPANET. A few years later, in 1980, another network called the Computer Science Research Network (CSNET) was linked to the ARPANET. The CSNET was created to connect several independent networks. This was the birth of the Internet.

In the latter half of 1980, the National Science Foundation also built its own network called NSFNET which was also linked to the other





two main networks. It was a powerful network in terms of speed as it was used to connect the super computer centres of the NSF.

As networking technology developed, new networks were being formed which were all linked to the ARPANET, CSNET and the NSFNET. All these networks connected together came to be known as the Internet. Eventually the ARPANET and the CSNET closed down and NSFNET, being a better network, became the main network linking the other networks on the Internet.

### 1.3 Client-Server basics

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The computers connected to the Internet :

- ➡ Use different hardware and software
- ➡ Exchange large volumes of data
- ➡ Require speedy exchange of data
- ➡ Need to have secure systems to prevent unauthorised access

The Internet is based on the client-server concept that takes care of the above needs.

A client-server application exists over a network :

- ➡ The server is a computer, which holds the data that can be accessed by other computers on a network. The server runs the server program.
- ➡ The client is a computer that accesses the data from the server. The client runs the client program.

### 1.4 Electronic mail (Email )

---

Electronic mail is one of the most popular facility of the Internet. People can send and receive messages (referred to as mail) within a few minutes across continents. It can be used for business and personal correspondence and exchange of information. Any type of computer (using different hardware and software) on the Internet can send and receive mail.)

### **1.4.1 How Does Email Work?**

Just like normal mail, addresses are required for the exchange of email. Every person who wishes to receive email must have an email address.

At the heart of the email service is the email service provider. This is an organisation that maintains (a computer capable of sending and receiving email.) This computer is referred to as the email server.

When a user applies for an email address, an account is created for him on the email server. The name of his account is referred to as his email address. All mail addressed to the user is received into this account. Email accounts are password protected, thus preventing other users from accessing the mail.

### **1.4.2 Email Address**

When the user applies for email facility, the email service provider creates an account for the user and assigns the user a unique email address. All email addressed to this email address will be saved into the user's account and can be accessed by the user as and when required.

The email address is of the format :

UserName@DomainName

- ➡ The user name is the identity of the user whose account it is.
- ➡ The "@" symbol separates the user name and the domain name. It is pronounced as "at".
- ➡ Every email server is given a unique name. This is referred to as the domain name.

For example: john@aol.com

- ➡ john is the identity of the user

The user name can be any name that is specified by the user at the time of supplying details for getting an email account.

- ➡ aol.com is the domain name.

Domain names have two components. The name of the organisation followed by the type of the organisation. Thus, 'aol' is the name of the organisation while 'com' is the type of organisation. 'com' is an abbreviation for commercial.

Examples of other types of organisations are 'edu' for educational site, 'gov' for government site or 'mil' for a military site.

The above address is the example of a user registered with an U.S. email service provider. For users registered with email service providers in countries other than the U.S., a 2 character code representing the country where the email server is based, is attached to the email address. For example: queen@fsa.com.ca.

- ➡ queen is the user identity
- ➡ fsa is domain name
- ➡ com indicates that it is a commercial enterprise
- ➡ ca stands for Canada

#### **1.4.3 Email Clients**

There are special mail programs available to compose, receive and send mail. They are referred to as email clients as they reside on the user's computer and are used to communicate with the email server.

Email clients also provide various other facilities like maintaining an address book of email addresses that make emailing very simple.

Some of the popular email programs are Eudora, Pine and Outlook Express.

#### **1.5 Telnet**

Telnet is a program that allows the user to log into another computer on the Internet as a user on that system. With Telnet, a user can log into a server to access information stored on it. However, only those users that have been allowed access by the organisation can login to the servers.

Organisations make use of the Telnet to make a part of their system available to outsiders.

## 1.6 File Transfer Protocol (FTP)

---

(Protocols are rules or standards that are followed by computers to communicate with each other on a network.) They are a set of conventions or standards followed by the industry.

Transferring data in the form of files is one of the most common uses of the Internet.

File Transfer Protocol or FTP is one of the most popular methods used for file transfers through the Internet. The reason for its popularity is that it has the capability to transfer files between different types of computers for eg. IBM-compatible computers using different operating systems like Windows, OS/2, Unix and Macintosh computers.

Computers that store information that can be accessed via FTP are called FTP servers. (Some FTP servers store files that can be accessed by anybody. These servers are called anonymous servers.) Other FTP servers require a specific user name and password to login.

## 1.7 Archie

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There are many FTP servers on the Internet which contain an enormous amount of information. A user would have to login to different servers one by one to check for the required files. Thus, finding the server that holds the required files is a difficult and tedious task.

To make this task easier Archie is used. It consists of Archie client and server. (An Archie server is a database of anonymous FTP servers. It holds the names of the FTP sites and the files on these sites. Thus, rather than login at each FTP site and determine whether it has the required file, one can simply look up an Archie site to see the files present on a particular FTP site.)

### 1.7.1 Using Archie

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There are three ways to access the Archie server :

#### ➡ Through the Archie client program

An Archie client is a program that the user runs from his computer to search the Archie database for a server with the required file. The user gives commands to the Archie server via the Archie client program. The client program will communicate with the Archie server and will retrieve the information.



➔ Through Telnet

An Archie server can be logged into using Telnet too.

➔ Through e-mail

An Archie server can be searched by sending it email with the search commands in the mail message body. The server sends the search results back via email message.

## 1.8 Gopher

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Gopher provides a menu based system that can be used to access the required information. (Gopher servers maintain information classified under categories.) These categories can have further sub categories.

To locate information we select the appropriate categories just like we would access files in a folder.

(The biggest advantage of Gophers is that they display information in the form of a menu.) The user clicks on the required option to access the information.

(Gopher servers are often collectively referred to as *Gopherspace*.)

### 1.8.1 Jughead and Veronica

---

With the increase in the number of Gopher servers, it was becoming difficult to reach the specific information through the menus. The user had to go through many menus before any relevant information could be found. Thus, a need for indexing arose.

An indexing mechanism allows the user to specify the keywords and the documents containing the keywords are shown. For example, a search on a keyword like 'health' would bring up all the documents that contained the word 'health'.

(Jughead and Veronica were two indexing systems that were developed to simply looking for information using Gopher.)

Jughead stands for Jonzy's Universal Gopher Hierarchy Excavation and Display. It was created to index the Gopher menu items (or directories).

Veronica stands for Very easy Rodent Oriented Netwide Index to Computerised Archives. Veronica looks for the keywords in the titles of menu items in Gopher.

It is not difficult for a new user to use Veronica. However, it also has many more options for the advanced user. It allows the user to restrict or advance the search of Gopher menu titles. It also allows logical query operators (AND, OR, NOT) for advanced searches.

## 1.9 WAIS

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WAIS stands for Wide Area Information Servers, (pronounced 'ways') and is a system in which specialised subject databases are created at multiple server locations. A directory of servers at one location keeps track of all the servers and the databases on them.

The WAIS servers store databases that contain information about where to look for specific information. The WAIS servers help in looking for the right database that may contain the required information and also provides access to it. WAIS searches for keywords through the contents of the documents rather than just at the titles of the documents.

WAIS is a very useful tool for finding relevant information from other databases on the Internet. These databases are called sources in WAIS terminology.

WAIS servers can be accessed in the following ways :

- ➡ Through Telnet
- ➡ Through a WAIS client program
- ➡ Through Gopher

## 1.10 World Wide Web (WWW)

---

Rapid developments in the field of multimedia created a need to exploit its benefits on the Internet.

The World Wide Web (WWW) or the Web is a system that has made it possible to access almost any document on the net, including sound, pictures, video. It has also made looking for information easy and fast.

On the WWW, information is displayed in the form of Web Pages. The Web Pages can hold :

- ➡ Formatted text

➔ Pictures

➔ Audio

➔ Video

This makes the information attractive and easy to use.

Web pages also contain hyperlinks. Hyperlinks are text or other objects that are linked to other pages that hold related information. Text that is hyperlinked to another document is underlined and pictures that are hyperlinked may be heavily outlined. To move from one page to another, the user has to simply click on the link.

For example :

Figure 1 displays the Web page of CNET.com, a popular website. The text in the first column is hyperlinked to documents containing information on computer hardware, computer games, software to download (copy from the Internet to your computer) etc. The page also provides a link to information on Web browsers. Clicking on the link "Better browsing" will display Figure 2.

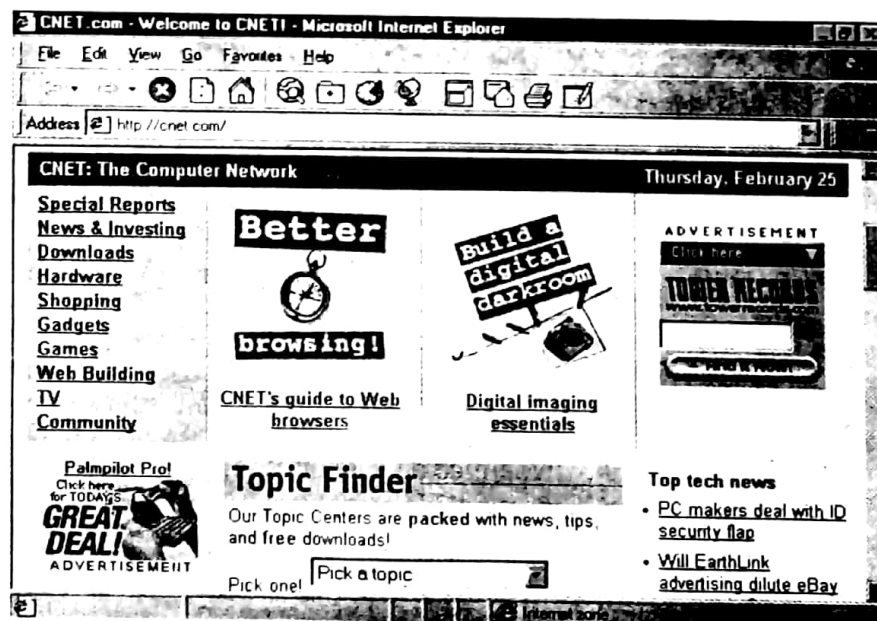


Figure 1



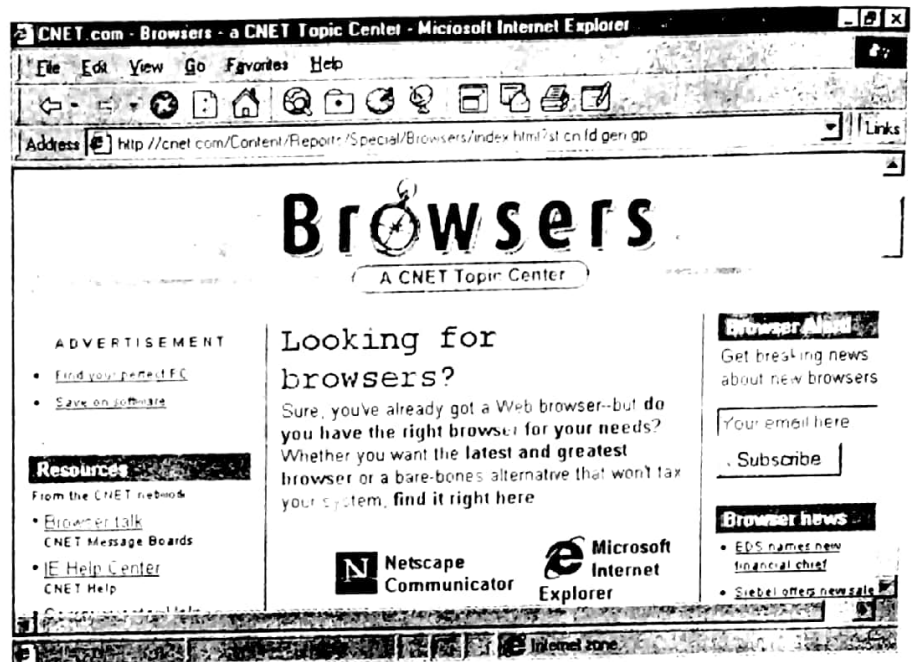


Figure 2

### 1.10.1 Browsers

(A browser is the software that is used to view Web pages.)

Browsers are of two types :

#### ➡ Text based browsers

These browsers only show textual information. They are not equipped to show graphics, movies and sounds. However, they make it easy to pick and follow links by selecting the appropriate highlighted text. For example : Lynx.

#### ➡ Graphical browsers

All graphical Web browsers allow the user to just point and click to access information. They have the capability to support hypermedia i.e. sounds, movies, formatted text and graphics. The most popular graphical browsers are :

#### ➡ Netscape Navigator

#### ➡ Internet Explorer

#### ➡ Mosaic

Browsers allow the user to specify the location of the web page to be viewed. Clicking on links opens the specified page in the browser.

### 1.10.2 Web Servers and Addresses

Web pages must be accessible to all on the Internet and are stored on special computers called as Web servers. Each web server is assigned a unique address of the format :

www.nameofsite.typeofsite.countrycode

Typically, web addresses start with 'www'. The 'nameofsite' is the name of the organisation or person whose page we are trying to access. 'Type of site' is a three character code indicating the nature of work. For example, 'com' stands commercial organisations, 'edu' stands for educational and 'org' for non-commercial organisations.

'countrycode' is a two character code indicating the country in which the web server is located. For example, 'il' is for Ireland, 'de' for Germany and 'gu' for Guam.

The site address is also referred to as the URL or the Uniform Resource Locator.

Web servers based in US do not need the country code.

Figure 3 shows the home page of the company Microsoft as viewed in the browser Microsoft Internet Explorer.

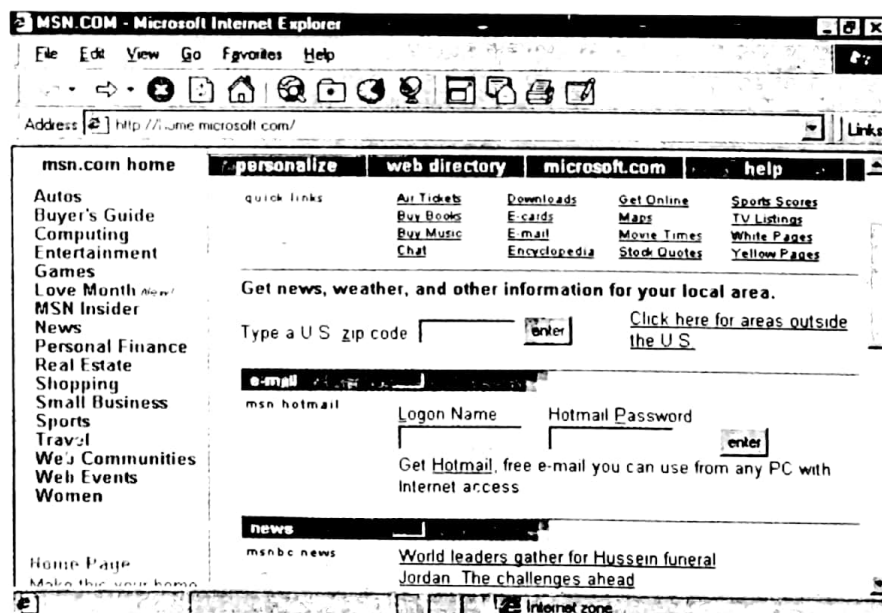


Figure 3

- The bar below the menu bar is called the navigation tool bar. It contains buttons for navigation on the World Wide Web.
- The URL of the home page appears in the list box with the caption Address. It is below the navigation bar.
- The text that is underlined is hyperlinked to other documents that contain related information. Clicking on any of these will open the associated page.

### 1.11 Search Engines

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Even though the World Wide Web simplifies accessing information, its vastness makes it a little difficult to find the relevant information quickly. To make searching easier, search engines were developed.

Search engines are software on the Web that help the user to look for specific information. They search for information on the Web on the basis of certain keywords specified by the user. The result of the search is a list of documents that contain the keywords.

However, the list could be a long one and could include more than fifty documents. To narrow down the search, there are several options that can be applied.

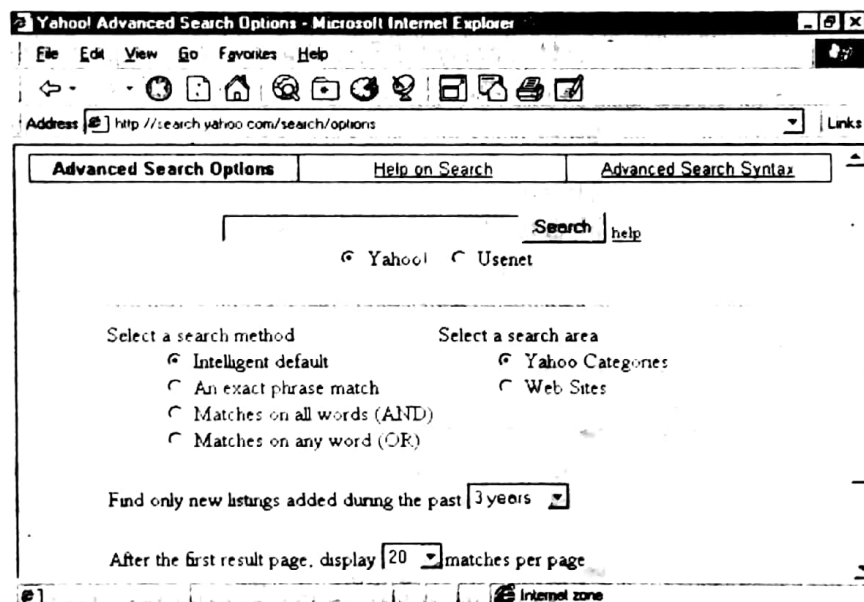
Consider the case where information on public health services is required.

- Type in "public health services" with the quotes. This will ensure that documents that contain the phrase "public health services" are given priority.
- A search using ±"public health services" will ensure that only documents that contain the exact phrase "public health services" will be retrieved. Using the + in front of a word or phrase during search implies that the word or phrase must be present in the document being retrieved.
- If the search string is +"public health"—service then, only documents that contain the phrase "public health" are retrieved. The use of the — indicates that documents that contain the word service must be omitted.

Some of the popular search engines on the Web are :

- ➡ Yahoo – [www.yahoo.com](http://www.yahoo.com)
- ➡ Altavista – [www.altavista.digital.com](http://www.altavista.digital.com)
- ➡ Infoseek – [www.infoseek.com](http://www.infoseek.com)
- ➡ Excite – [www.excite.com](http://www.excite.com)
- ➡ WebCrawler – [www.webcrawler.com](http://www.webcrawler.com)

Figure 4 displays the screen of Yahoo! one of the most popular search engines.



**Figure 4**

Search engines usually refer to the programs that are used to search for data on the World Wide Web. Programs like WAIS and Gopher are also search engines. They are used to search for data in databases across the Internet.

The advancements in the Web are leading to the merging of the lines of difference between the search engines on the Web and the Internet. For example, Yahoo, a Web search engine gives the user an option to search for data in newsgroups such as Usenet (a network of mail servers created to enable exchange of information between groups with common interests), which is a part of the Internet but not of the Web.

## 1.12 Introduction to HTML

Text processing and word processing systems have information to describe how the text of the document is to be displayed. This information is called markup.

In 1980, a mark up language was developed to create documents that could be displayed consistently on computers using different hardware and operating systems. It was called the Standard Generalized Markup Language or SGML.

SGML is a general-purpose tool to describe documents of any kind. SGML documents are not restricted to a single application, formatting style, or processing system.

HTML or Hyper Text Markup Language is defined using the Standard Generalized Markup Language. It is a way of incorporating text, graphics, sounds and videos all in one document called a Web page.

These documents can be displayed using Web browsers. It provides links to other resources using hyperlinks. It also has the capability to work with other Internet protocols and services on the Web like FTP, Gopher, Usenet, e-mail, WAIS, Telnet and HTTP.

HTML is based on two concepts :

### ➤ Hypertext :

It provides a way to create a link between information in the same document as well as in different documents.

### ➤ Markup language :

Mark up refers to the special tags that are a part of the HTML document. These tags specify how the document content should be displayed.

### 1.12.1 Benefits of HTML

- HTML is a simple but powerful language to use. The simplicity of HTML allows anyone to create Web pages.
- The Web pages can be linked together using links and Uniform Resource Locators. Thus a user has to just click on hyperlinks to get access to related information.
- Using URLs it is even possible to link to documents through Telnet, WAIS, Gopher, FTP, Usenet newsgroups, or even email.

- HTML also allows for the incorporation of multimedia files in the HTML documents. If the browser has the capability to play the sound or movie files then the user can view them just by clicking on them.

### 1.12.2 Structure of an HTML document

Every HTML document should have the following structure :

#### ➤ A head :

HTML includes a pair of tags, `<HEAD>` and `</HEAD>` to identify the head of a document. Many browsers don't require this tag, but for readability and structure, it is better to use it.

The head contains the opening `<HTML>` tag. Every HTML document must have this tag as the first line and the closing tag `</HTML>` as the last line. These tags identify the document as an HTML document to the browser.

The opening `<TITLE>` and closing `</TITLE>` tags also appear in the head of the document. The text between the title tags appears in the title bar of the browser's window.

#### ➤ A body :

The body of an HTML document contains the text that will show up on the Web page. It also contains all the links to other information that is related to the page. Majority of HTML tags occurs within a document's body.

The body section is enclosed within `<BODY>` and `</BODY>` tags. It has a description of the document's layout and structure. A variety of tags for text headings, embedded graphics, text paragraphs, lists, and other elements are used.

Refer to Figure 5 for the structure of an HTML document.

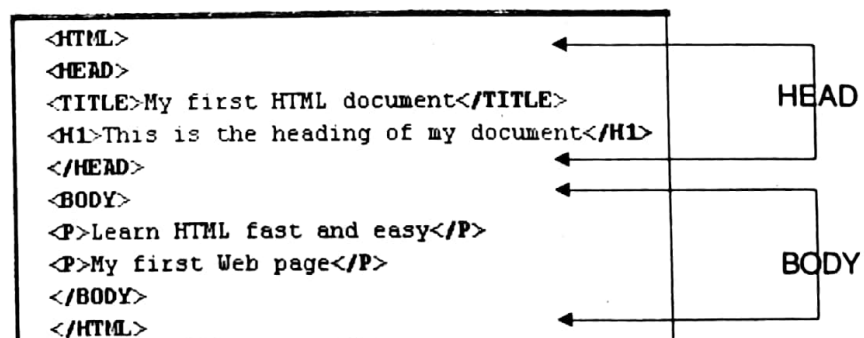


Figure 5

The output of the above code is displayed in Figure 6.

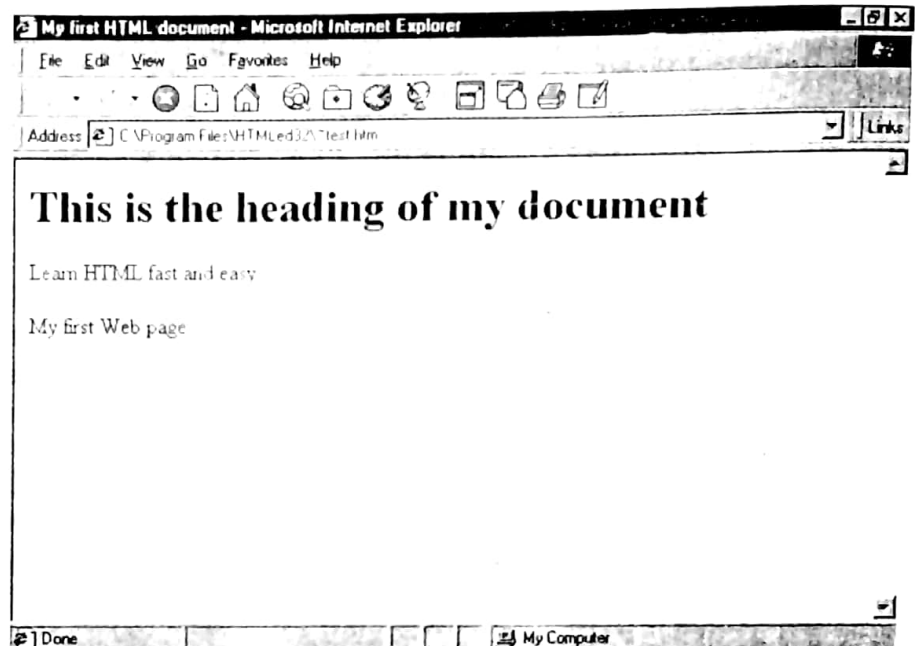


Figure 6

HTML files include both control information (tags) and content (text), which together describe the appearance and contents of Web pages.

An example of a tag :

`<B>My Personal Home Page</B>.`

`<B>` and `</B>` are the opening and closing tags that will display the text 'My Personal Home Page' in bold on a Web page.

The following syntax should be kept in mind while writing HTML documents :

- ➡ Each tag is enclosed in a `<` (left bracket) and `>` (right bracket). These special characters are what differentiate the tags from ordinary text.
- ➡ There is an opening and closing tag name for each tag.
- ➡ Opening is denoted by `<>`, for example, `<I>`:  
This is the opening tag to display text in Italics.



- Closing tag is denoted by `</>`, for example, `</i>`:  
This is the closing Italics tag.
- Closing tags may not be required for some of the tags. But it is better to write closing tags for all.
- Tag names are not case sensitive but generally they are written in uppercase so as to distinguish them from the normal text.
- Tags can have attributes which have values, for example: `"align=center"` where align is an attribute and its value is centre. This attribute can be used to align text in the centre of a page.
- The "&" can be used to display special characters.

Sometimes it is necessary to insert one set of markup tags within another to get the required display result.

(Enclosing one markup in another is called nesting).



### **The Session In Brief**

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- The Internet or the net is a network of networks, all freely exchanging information. It is also referred to as the Information Superhighway.
- The Internet originally started off as a network called the ARPANET, a project started by the Department of Defence (DOD), U.S.A, in 1969.
- The Internet has many components. Some of these are :
  - ☐ Email
  - ☐ FTP
  - ☐ WWW
  - ☐ Gopher
  - ☐ WAIS
  - ☐ Archie
  - ☐ Jughead
  - ☐ Veronica
  - ☐ Telnet
- World Wide Web (WWW) or the Web is a system that allows users to have access to almost any document that is on the Internet. It could be sound recording, or video image. It has made looking for information fast, powerful and easy.
- A browser is the software used to access the Web. The most popular browsers are Netscape Navigator, Internet Explorer, Mosaic and Lynx.
- Search engines are software on the Web that help the user to look for specific information. All that is required is to type in key words, and the search engine will show a list of the documents that contain the words.
- HyperText Markup Language or HTML is a way of representing text and linking that text to other kind of resources like sound files, graphics files, multimedia files.



### Check Your Progress

1. Arpanet became so popular that all the universities in the country wanted to join it.
2. FTP stands for File Transfer Protocol.
3. Veronica stands for Very Easy, Robot oriented Network Index to Computerised Archives.
4. Jughead stands for Jargon Universal Graphical hierarchy.
5. An Archie server is a database of anonymous FTP servers.
6. Software used for viewing web pages is called Browser.
7. The site address is also referred to as the URL.
8. HTML stands for Hyper Text Markup Language.



## Internet and Web Page Designing

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# CHAPTER 2 MORE ON INTERNET AND HTML

Concepts  
2

## SESSION OBJECTIVES

*At the end of this session, the student will be able to -*

- ➡ Explain TCP/IP fundamentals
- ➡ Explain the usage of tables in html documents
- ➡ Discuss applets and their usage in html documents
- ➡ Discuss the uses of the internet with special focus on e-commerce, on-line supermarkets, universities and on-line courses.

## 2.1 TCP/IP – An Overview

TCP/IP stands for Transmission Control Protocol and Internet Protocol. Computers connected to the Internet use these protocols to communicate with each other. Basically, they define how computer networks on the Internet exchange messages or data.

The TCP/IP suite of protocols was developed by Vinton Cerf and Robert Kahn in 1974.

### 2.1.1 Transmitting Messages

Every node (computer) on the Internet has an address made up of four numbers. Each number should be less than 256. For example, 202.54.1.1. [Each machine has a unique address on the entire Internet.]

To send a message from one computer to another, we need to specify

the address of the destination computer. Also, if the message is long it is broken up into multiple packets and each packet is sent individually and the whole message is reassembled at the receiving end.

Also on the Internet are routers whose job is to send data along different paths so that it may reach its destination.

At the receiving end, the different packets are put together to form the complete message.

The process of sending across a message using TCP/IP is described below :

- The Transmission Control Protocol takes care of dividing the messages into packets. A packet is an electronic envelope which contains :
  - ☐ The address of the source and the destination machine.
  - ☐ Information about the size of the packet.
  - ☐ Information about where it fits in the series of packets that make up a large message.
- The Internet Protocol addresses these packets and then mails them.
- The packet will be received by the computers called routers. Routers will then pass it on to other routers.
  - ☐ The path travelled by the packet may not be the shortest possible one.
  - ☐ All packets need not follow the same path.
- At each point, an attempt is made to locate the destination computer.
- Finally, the packets will reach their destination computer and not necessarily in the sequential order.
- While receiving, the IP receives the packets and gives them to TCP.
- TCP confirms that all the packets have been received.
- Finally it puts the packets together again.

## 2.2 Tables

Tables are used for arranging the layout of a Web page. The contents on the page look organised with the use of tables, which adds to its visual appeal. Most of the latest browsers support the use of tables.

### 2.2.1 Basic table tags

Figure 1 is an example of a simple table

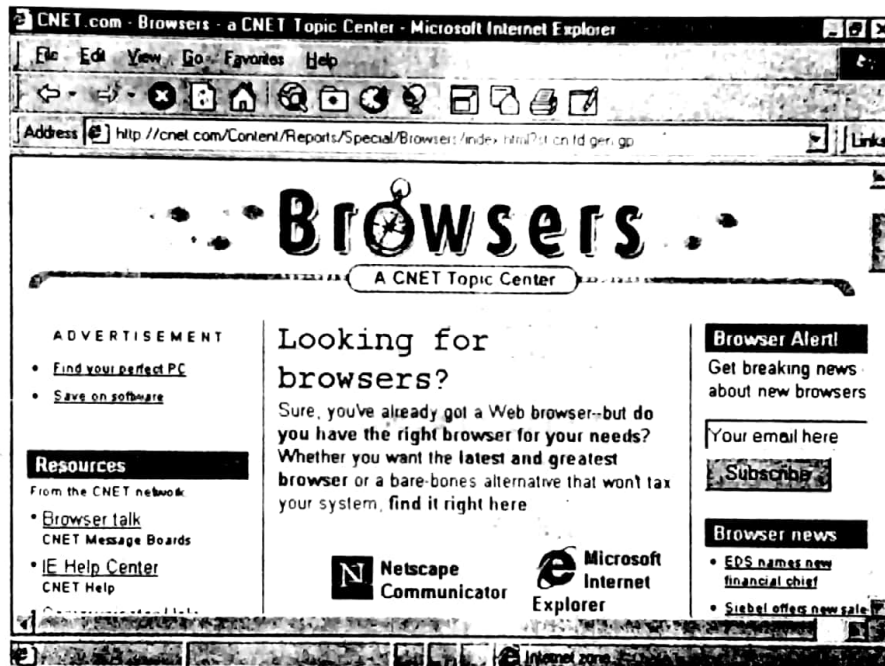


Figure 1

➡ It has 4 cells arranged as two columns and two rows (cell 1, 2, 3, 4).

➡ It also has a border.

The code for the table is as follows :

```
<table border="1">
  <tr>
    <td>CELL 1</td>
    <td>CELL 2</td>
  </tr>
  <tr>
    <td>CELL 3</td>
    <td>CELL 4</td>
  </tr>
</table>
```

The tags used in the above code are explained below :

### ➡ **<TABLE>... </TABLE>**

All the table tags are enclosed between these two tags. Other table tags such as <TR>...</TR> and <TD>...</TD> will be ignored by the browsers if they are not contained with <TABLE>...</TABLE> tags.

The table tag can have the following attributes :

#### ☐ **ALIGN**

Specifies the alignment of the table in the page. Valid options are "LEFT", "RIGHT" and "CENTER".

#### ☐ **BORDER**

Specifies the width of the border to be drawn around all table cells. By default, there is no border drawn.

#### ☐ **CELL PADDING**

The space between the content and inside edge of a cell.

#### ☐ **CELL SPACING**

The amount of space between cells in a table.

#### ☐ **WIDTH**

Used to specify the width of the table.

For example :

```
<TABLE BORDER = 5 CELL PADDING = 4>
```

```
.....
```

```
</TABLE>
```

will create a table with border thickness as 5 and a distance 4 between the text and cell border.

### ➡ **<TR>...</TR>**

This stands for table row. To add a row in a table, the table row tags are used. For each row there will be a set of table row tags. The properties of each row are defined within the row tags.

### ➡ **<TD>...</TD>**

This stands for table data. The table data tags define each cell in the table. They must be nested within the table row tags.



Each row can have different number of cells. Short rows are padded with blank cells on the right. A cell can contain any HTML tag normally used in the body of an HTML document.

Some table data attributes are :

☐ **ALIGN**

The horizontal alignment of the text within the cell.

☐ **COLSPAN**

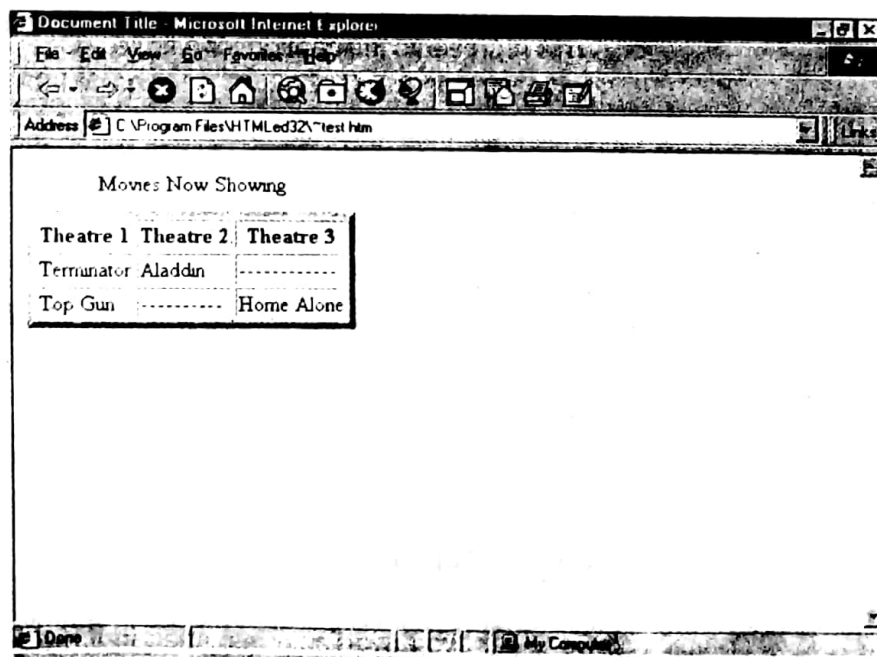
Width of the cell in terms of number of columns. Used when a cell occupies more than one column.

☐ **ROWSPAN**

Height of the cell in terms of number of rows. Used when a cell occupies more than one row.

### 2.2.2 Table Captions and Headers

Tables can be given a caption and designated to have a header row. In Figure 2 shown below, 'Movies Now Showing' is the caption and the first row has been designated the header row containing 'Theatre 1', 'Theatre 2' and 'Theatre 3'.



The screenshot shows a web browser window with the title 'Document Title Microsoft Internet Explorer'. The address bar shows 'C:\Program Files\HTMLed32\test.htm'. The main content area displays a table with the caption 'Movies Now Showing'. The table has three columns: 'Theatre 1', 'Theatre 2', and 'Theatre 3'. The first row contains the movie titles 'Terminator', 'Aladdin', and a blank cell. The second row contains 'Top Gun', a blank cell, and 'Home Alone'.

Theatre 1	Theatre 2	Theatre 3
Terminator	Aladdin	
Top Gun		Home Alone

Figure 2

The HTML code for the table in Figure 2 is :

```
<table border="5">
  <caption align="top">Movies Now Showing</caption>
  <tr>
    <th>Theatre 1</th>
    <th>Theatre 2</th>
    <th>Theatre 3</th>
  </tr>
  <tr>
    <td>Terminator</td>
    <td>Aladdin</td>
    <td>—————</td>
  </tr>
  <tr>
    <td>Top Gun</td>
    <td>—————</td>
    <td>Home Alone</td>
  </tr>
</table>
```

The tags used are :

#### ➡ **<CAPTION>...</CAPTION>**

This represents the caption for a table. <CAPTION> elements should appear inside the <TABLE> but not inside table rows or cells. Captions are always horizontally centred with respect to the table, and they may have their lines wrapped to fit within the width of the table.

Attribute for the tag is :

#### ☐ **ALIGN**

Specifies the location of the caption. Valid options are "TOP" and "BOTTOM"

#### ➡ **<TH>...</TH>**

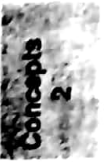
These tags are used to designate a cell as a header cell and are to be used from within the <TR>...</TR> tags.

## ✓ 2.3 Applets

---

Consider two advertisements seen in a movie theatre :

- ➡ One with dynamic images and movie/sound clips.
- ➡ The other plain, static slides



Predictably, the former advertisement would be much more appreciated because of its greater visual appeal.

The World Wide Web too, is a global marketing medium. Dynamic images, flashing/scrolling text and animation would leave a greater visual impact on its audience than static text and images

A Web page designed using HTML is a static page. Thus the information presented on it is constant. One way to prepare dynamic HTML pages is using Java Applets.

### 2.3.1 What is a Java Applet?

A Java Applet is :

- ➡ A program written in the Java programming language.
- ➡ It can be embedded in an HTML page.
- ➡ It has to be executed from within a Web browser.

Java applets do not become a part of the HTML files. They are stored separately in another file. A link is maintained between the two files.

At the time of loading of the Web page, the applet is loaded onto the local machine and run by the browser. The applet then performs the task it is required to do.

However, there are a few restrictions on the applets :

- ➡ Applets cannot read or write files on the local machine.
- ➡ They cannot communicate with any server except the one on which they reside.
- ➡ They are not allowed to execute any applications on the local machine.

These restrictions make sure that the applets cannot cause any damage to the files on the local machine.

### 2.3.2 The Tag <APPLET>...</APPLET>

The <APPLET> tag is used to include Java applets in HTML documents. It is used as shown below :

```
<APPLET CODE="MyApplet.class" WIDTH=100  
HEIGHT=140></APPLET>
```

The attribute CODE specifies the name of the Applet's file, "MyApplet.class". The attributes WIDTH and HEIGHT are used to define the Applet's display area.

Applet files have a '.class' extension.

In some cases the Applet has parameters that can be used to customise its look or behaviour. Values are passed to the parameters using the tag PARAM, which is used as shown below :

```
<APPLET CODE="MyApplet.class" WIDTH=225 HEIGHT=50>  
<PARAM NAME="Text" VALUE="I am an Applet">  
</APPLET>
```

The applet MyApplet.class displays dancing text. For this applet, we use the parameter *Text* to specify the text to be displayed in the applet.

For the output of the above code, refer to Figure 3.

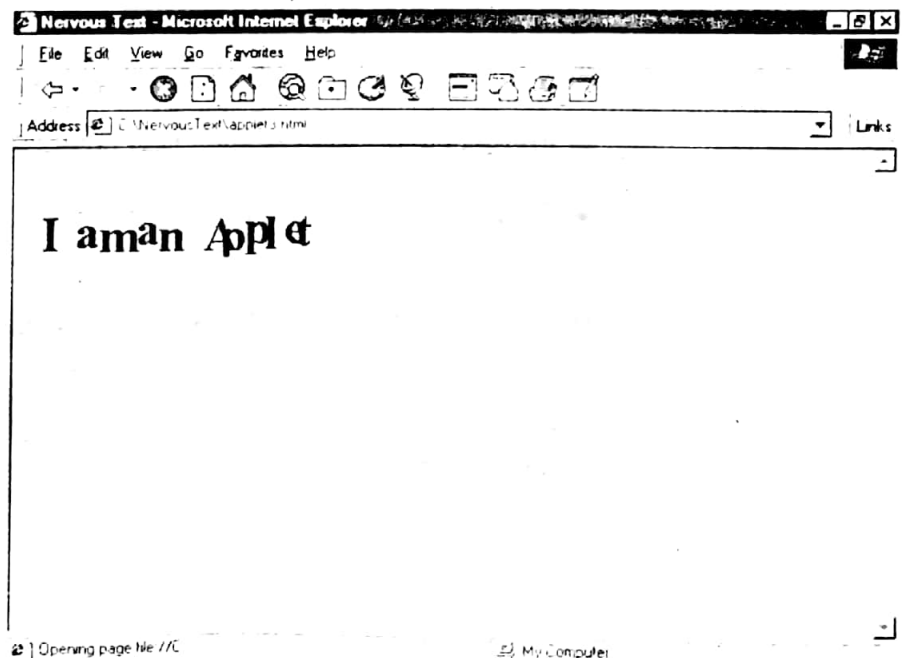


Figure 3

The tag PARAM has two attributes :

➡ NAME

Used to specify the parameter.

➡ VALUE

The value to be assigned to the specified parameter.

## 2.4 Internet Usage

---

When it first started, the ARPANET (from where the Internet began) connected only four sites, and only a few hundred people had access to it. Each of the four sites had its own local network. Presently, the Internet has grown to more than 10,000 networks from the original four.

The Internet has some base networks supporting it. Earlier, the ARPANET was the one of its main networks. Today, several networks form its base. One of the most important is the NSFNET. These main networks provide reliable and high speed data transfer.

By 1972, there were 40 different sites attached to the ARPANET. The ARPANET was started for the purpose of sharing data. The traffic between its sites included small text files sent between individual users.

The Internet's phenomenal growth has made it a global marketing medium and a commercial business area. Communications companies, telephone companies, and cable television firms, and corporates, all want to be a part of the Internet phenomenon.

Currently the Internet is being used :

- ➡ For emailing
- ➡ For exchange of data and information
- ➡ As a forum for discussions, exchanging information and news between special interest groups
- ➡ For on-line conversation
- ➡ For commercial or business transactions
- ➡ For on-line training

- ➡ For recruitment purposes
- ➡ For entertainment
- ➡ For accessing information on any topic in the world

Some of the areas where the Internet is being used have been discussed below.

#### **2.4.1 E-commerce**

E-commerce stands for electronic commerce. With the Internet, the customers can view the available products and/or services on-line, select the product(s) that he wants to buy and place an order for these products. Payment details are also specified on-line. Payment is typically done by specifying a Credit Card number. The customer is charged on his credit card for the purchases made and will pay for them when he receives the credit card bill.

Businesses are joining the Internet faster than any other group of Internet users. It meets many of their needs, including :

- ➡ Advertising and marketing
- ➡ Research and development
- ➡ Customer support
- ➡ Supplying information
- ➡ Taking orders
- ➡ On-line surveys
- ➡ Recruitment
- ➡ Selling

The commercial users of the Internet are from various industries like computer-related industries, oil companies, pharmaceutical companies, healthcare-related industries, financial services, banks and many more.

Even small companies and individual entrepreneurs use the Internet to maintain contact with the global market.

Many types of businesses have started appearing on the net. Some of them are :

- ➡ Book sellers
- ➡ Travel agencies
- ➡ Courier companies
- ➡ On-line shopping
- ➡ E-zines (electronic magazines)

The speed and the size of the Internet are an advantage for commercial ventures. It provides a place where they can reach their customers, promote their products, and provide information to others. It provides a great many advantages :

➡ Global communication :

The Internet provides rapid communication facilities at the cost of a local phone call. It allows the users access to a world market. Even small, rural businesses have easy access to the global market.

➡ No time zone difference problems :

The use of facilities like email and on-line chatting enables the companies to be in contact with the suppliers, clients, and employees inspite of time differences across continents. E-mail messages can be accessed at the user's convenience. For immediate contact, on-line chatting is a good tool.

The Internet has made it possible for employees to live and work at a distance. They need not go into the office physically. Transfer of information, and meetings can take place over the net.

➡ Customer feedback and support :

One of the main advantages of the Internet is being able to maintain good contact with the customers. Customers can contact companies at any time of the day or night using e-mail and obtain information by way of Gopher and FTP. The use of the Internet helps in maintaining a close relationship with the customer.

➡ Marketing and Sales :

A web site on the World Wide Web can provide the company with a global presence. Companies can establish this presence by

using tools like Usenet, Gopher, FTP Telnet, and e-mail. Businesses can carry out marketing research online.

➤ Information Resources :

Organisations need all kinds of latest information. Many businesses rely on the latest scientific and/or governmental information for their operations. The Internet provides this information in abundance.

➤ Supplier support :

Contacting old and new suppliers can be done speedily over the Internet. This in turn can speed up the procedure to obtain supplies.

### **2.4.2 On-line Supermarkets**

On-line supermarkets refer to the sites on the Internet that sell items like books, music tapes, and deliver flowers across countries. Some sites even have the facility to book movie tickets and have them delivered. For example, Amazon.com, BarnesandNoble.com.

The advantages of these sites are :

- The user can browse through the products available with that supermarket, from home at his convenience.
- Products that may not be available locally can be bought through these sites.

However, the disadvantage lies in the time taken for the delivery of the product. Delivery may not be as quick as desired.

On-line supermarkets are getting popular and soon people would be able to buy garments, household products, and probably even computers on the Internet.

Figure 4 shows the Web site of a supermarket called Raley's & Bel Air. It has on-line services like helping the customer to make a shopping list (Figure 5) and filling out medical prescriptions (Figure 6).





Figure 4

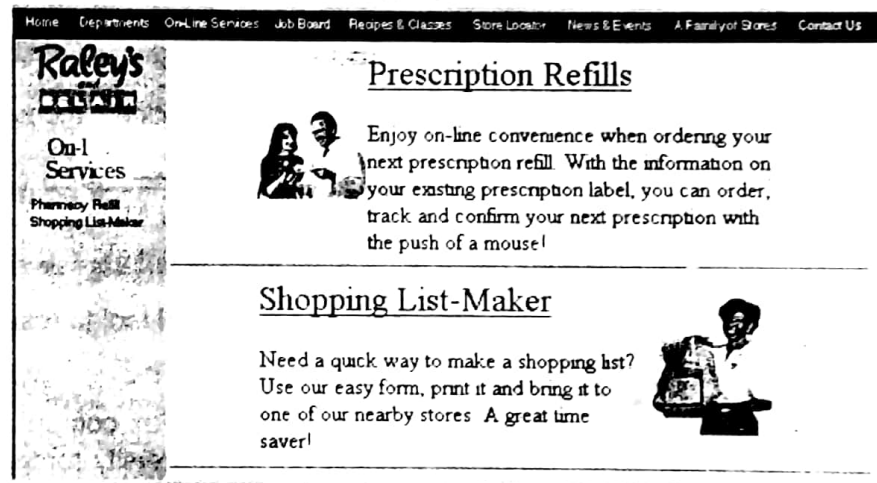


Figure 5

Figure 6



### **2.4.3 Universities /on-line courses**

Many universities have Internet connection. The universities on the Internet tend to exchange resources to help each other. They also use the Internet to put up publications, announcement of conferences and vacancies.

The universities also put up information about student loans grants, scholarships and work-study programs on the Internet.

Many universities provide Internet access to their students.

Potential students, local as well as from other countries, seeking admission to universities abroad, can access their web sites. The web sites provide information on the courses and programs offered.

The students can correspond with the universities regarding the admission procedures via e-mail. E-mail proves to be a much cheaper and faster option than the conventional modes of communication.

Most universities place a lot of importance on research, especially research that brings in grant money. Many government agencies place their grant offers on relevant Internet mailing lists and Usenet groups.

The Internet proves to be a useful tool to researchers :

- ➡ Many academic researchers need supercomputers to run programs that perform complex computations. The programs cannot be executed on the university computers. The Internet has sites where researchers can access supercomputers and pay for their use.
- ➡ Researchers can download software including editors, compilers, spreadsheets, databases, and analysis tools to help them in their research.
- ➡ They can conduct surveys by posting questionnaires on an Internet mailing list or Usenet newsgroup.
- ➡ Hundreds of academic libraries can be accessed for information on the Internet.
- ➡ Articles written by researchers have to be reviewed by peers. This is to verify their accuracy before they can be published in journals. By putting up the articles on the Internet, the peer-review process can be speeded up.

- Academic researchers can exchange and discuss ideas via e-mail and by conducting public discussions in mailing lists and Usenet newsgroups.
- Databases containing the research information are being put up on the Internet. Other researchers and the general public can access these databases for information.
- Publishing articles on the net offer advantages like faster publishing, easier distribution, and reduced cost. Articles can take months to get published through the normal publishing process. However, on the Internet, the whole process could take just a few weeks.

Another area in academics where the Internet is gaining popularity is distant learning. It has been implemented by using e-mail, Gopher and FTP. People can take these courses while sitting at home or in the office.

Taking courses via the Internet has several advantages :

- There is more and faster interactivity between the student and the faculty than in a traditional, paper-based correspondence.
- The student can access the Internet from any place in the world. Thus, the study material can be accessed from anywhere without any break in continuity.
- Many courses use Gopher and FTP to make information available. This allows the students to explore the study material at their own pace.
- In traditional distance education, access to books, materials and libraries was difficult. However, over the Internet the students are able to access databases, articles, journals and libraries.

Distance education is moving toward a virtual reality environment, where the user will go through the experience of being present in an actual classroom. The students and the faculty will be able to assemble in a class-like environment on the Internet. Special hardware and software will be required to implement a virtual classroom.

### The Session In Brief

- TCP/IP stands for Transmission Control Protocol and Internet Protocol. Computers connected to the Internet use these protocols to communicate with each other.
- Tables are used for arranging objects on a Web page. The basic table tags are :
  - <TABLE>, </TABLE>:
  - <TR>, </TR>:
  - <TD>, </TD>:
  - <CAPTION>, </CAPTION>:

- A Java Applet is a program written in the Java programming language. It allows HTML authors to include live audio, animation, or applications in their Web pages.

The <APPLET> tag is used to include Java applets in HTML documents.

- Currently, the Internet is being used for emailing, on-line training and chatting, accessing information, and for commercial transactions.

E-commerce stands for electronic commerce. The Internet meets many needs of businesses like marketing, customer support, selling and research.

On-line supermarkets refer to the sites on the Internet that sell items like books, music, and deliver flowers across countries.

Many universities have Internet connection. The universities on the Internet tend to exchange resources to help each other. They also use the Internet to put up publications, announcement of conferences, and vacancies.

**Check Your Progress**

1. TCP/IP stands for Transmission Control Protocol.
2. Every node on the Internet has an address. **True/False.**
3. The Internet Protocol takes care of dividing the messages into packets. **True/False.**
4. The table data tags define each cell in the table.
5. CELLPADDING allows specification of the amount of space between the border and the content of a cell. **True/False.**
6. Applets can read from and write to files on the local machine. **True/False.**

Concepts  
2

Internet Protocol

(inside the edge of cell)

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## **LAB GUIDE**

### SESSION OBJECTIVES

*At the end of this session, the student will be able to -*

- Invoke Microsoft FrontPage Express
- Create a Simple HTML page
- Format text – Bold
- Format text – Italics
- Format text – Bold and Italics
- Create bulleted lists
- Create numbered lists
- Set text attributes
- Use standard headings
- Set background colour and image for the document
- Set the default text colour for the document

The steps given in the session are detailed, comprehensive and carefully thought through. This has been done so that the learning objectives are met and the understanding of the tool is complete. Please follow these steps carefully.

#### **The First 1 Hour :**

##### **1.1 Creating a Folder**

---

We will first create a folder called *Aptech* to hold all the HTML files that we create in this lab session.



1. Click on the button 'Start'.
  2. Click on the option 'Programs'
- Refer Figure 1.

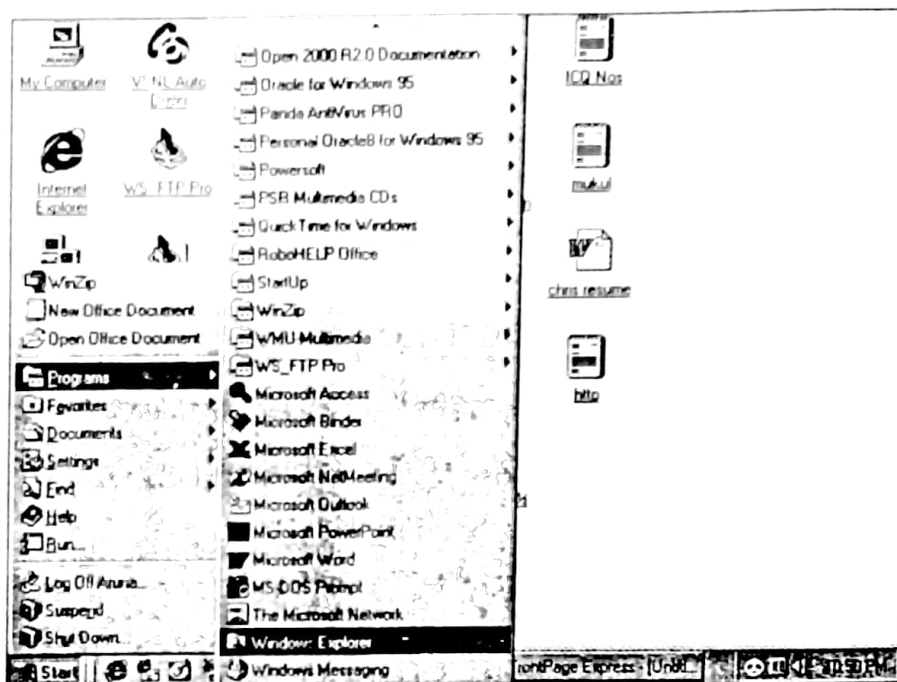


Figure 1

3. Click on the option 'Windows Explorer'.
- This displays the Windows Explorer.
4. Click on the icon for drive 'C:' on the left.
- Refer Figure 2.

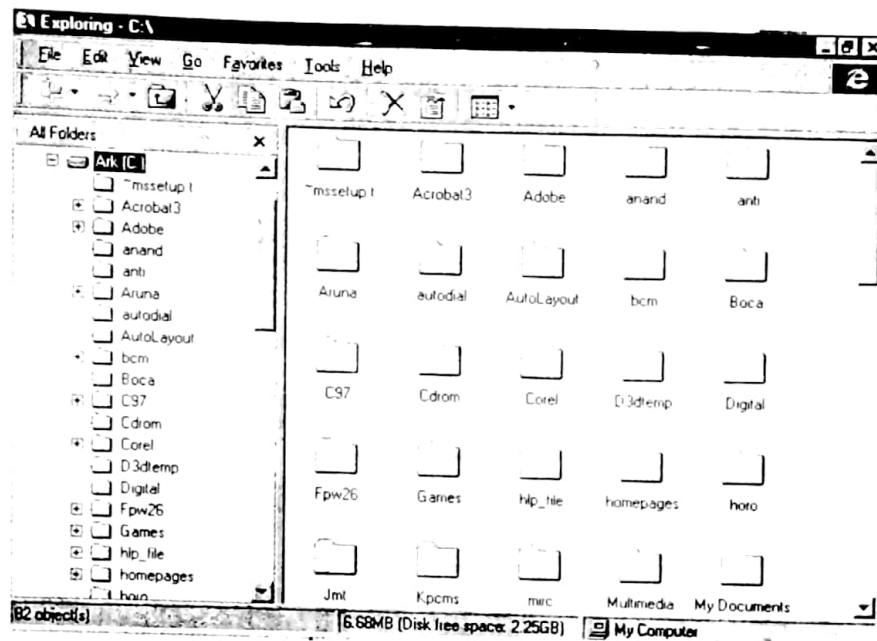


Figure 2

5. Click on the menu option 'File'.
6. Click on the sub menu option 'New'.  
Refer Figure 3.

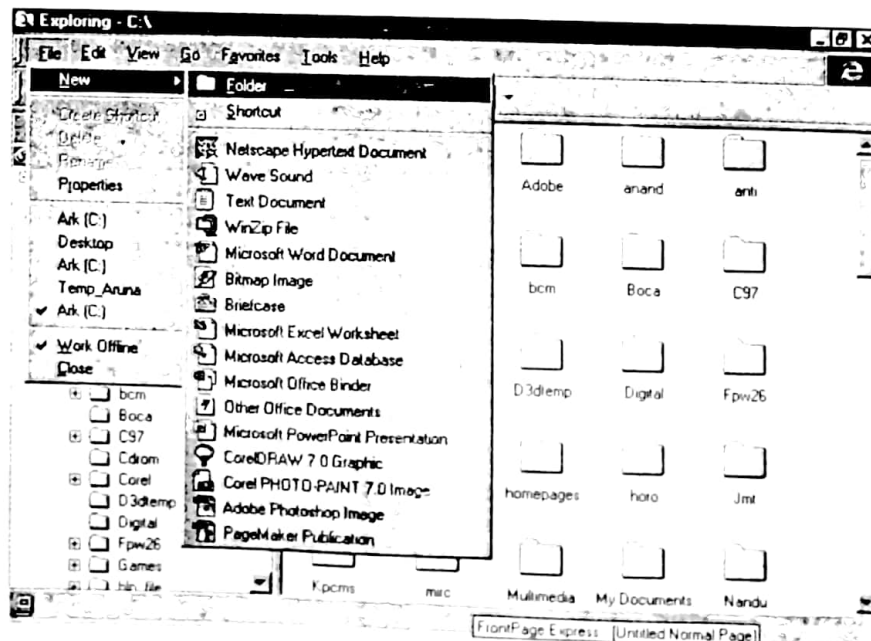


Figure 3

**7. Click on the sub menu option 'Folder'.**

This creates a new folder with the name 'New Folder'.  
Refer Figure 4.

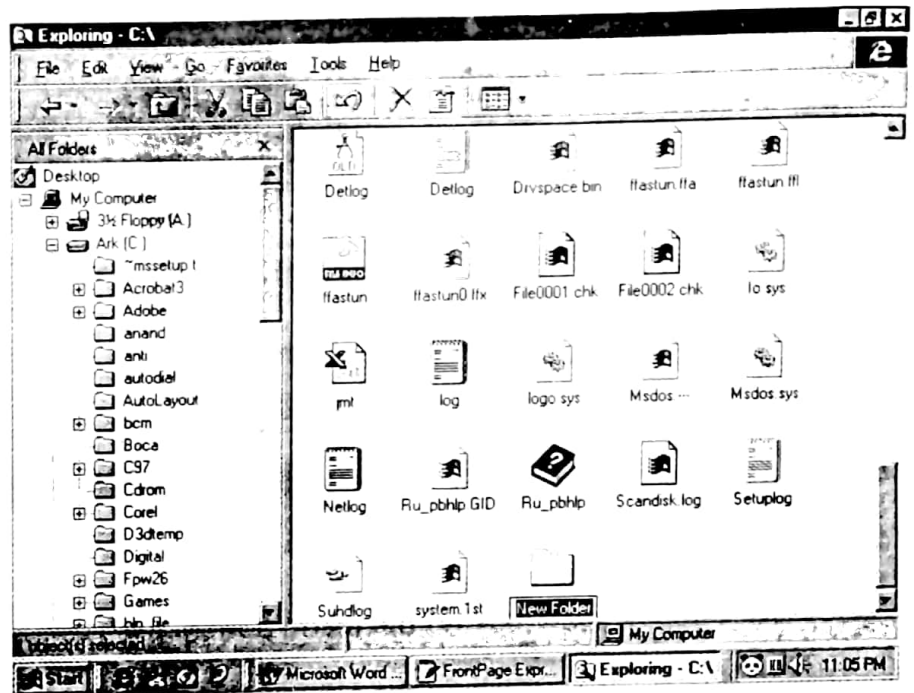


Figure 4

**8. Type Aptech as the new folder name.**

**9. Press <Enter>.**

Refer Figure 5.

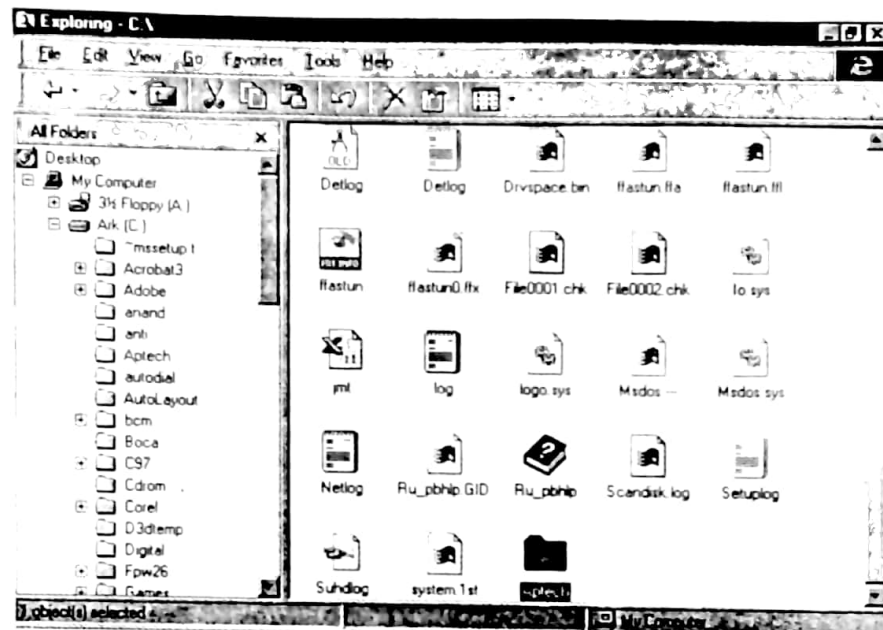


Figure 5

10. Click on the button 'X' on the top right corner to close the Windows Explorer.

## 1.2 Invoking FrontPage Express

1. Click on the button 'Start' on the taskbar.
2. Click on the option 'Programs'.  
This displays more options.
3. Click on the option 'Internet Explorer'.  
This displays more options.  
Refer Figure 6.

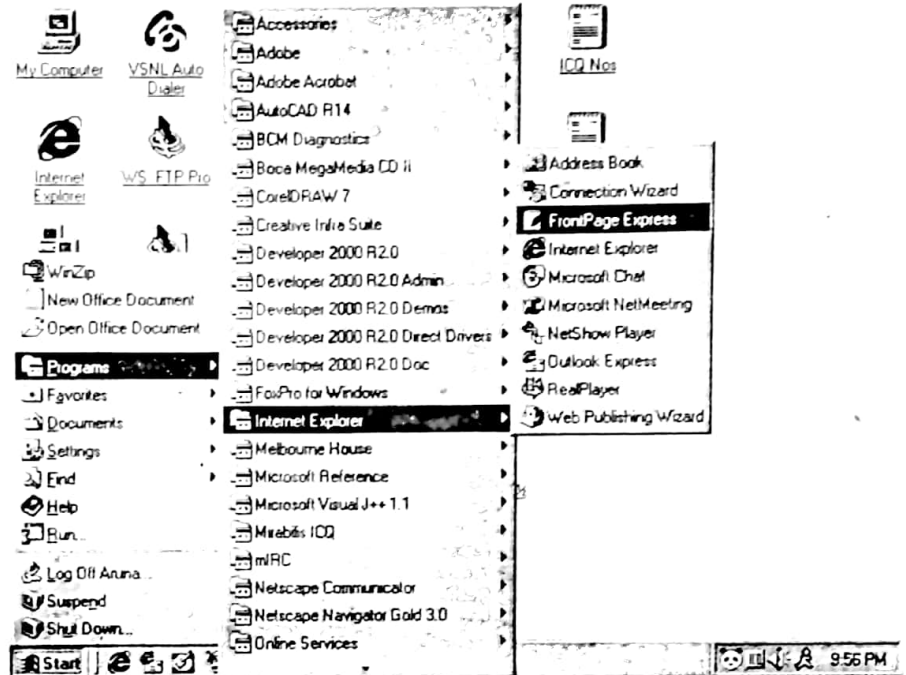


Figure 6

4. Click on the option 'FrontPage Express'.  
This starts Microsoft FrontPage Express. Refer Figure 7.

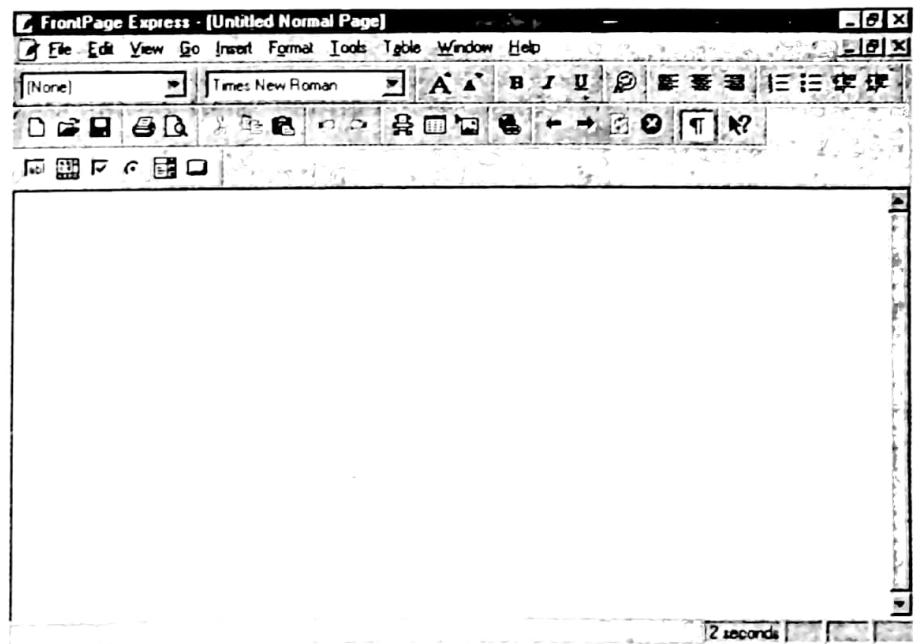


Figure 7

### **1.2.1 Microsoft FrontPage Express – An Introduction**

FrontPage Express from Microsoft is an HTML editor. An HTML editor is a tool that enables us to create documents that use the Hypertext Markup Language (HTML).

Using Microsoft FrontPage Express enables us to create Web pages using HTML in an intuitive, 'what you see is what you get (WYSIWYG)' manner. Thus, we create HTML pages by formatting text and deciding layout as we would do a normal document in any wordprocessor. The page created in FrontPage Express will look the same when opened in any browser.

(The HTML required to produce the selected formatting is written by FrontPage Express in the background.) This saves the users the trouble of remembering and using the appropriate HTML tags and their attributes.

### **1.3 Creating an HTML Page**

- 1. Type the following text in the blank document displayed in FrontPage Express.**  
Refer Figure 8.

Microsoft Office

Microsoft Office is a suite of office automation products that includes :

Word – Wordprocessor

Excel – Spreadsheet

PowerPoint - Presentation Software

Access - Database Management System

Outlook - Information Management Tool

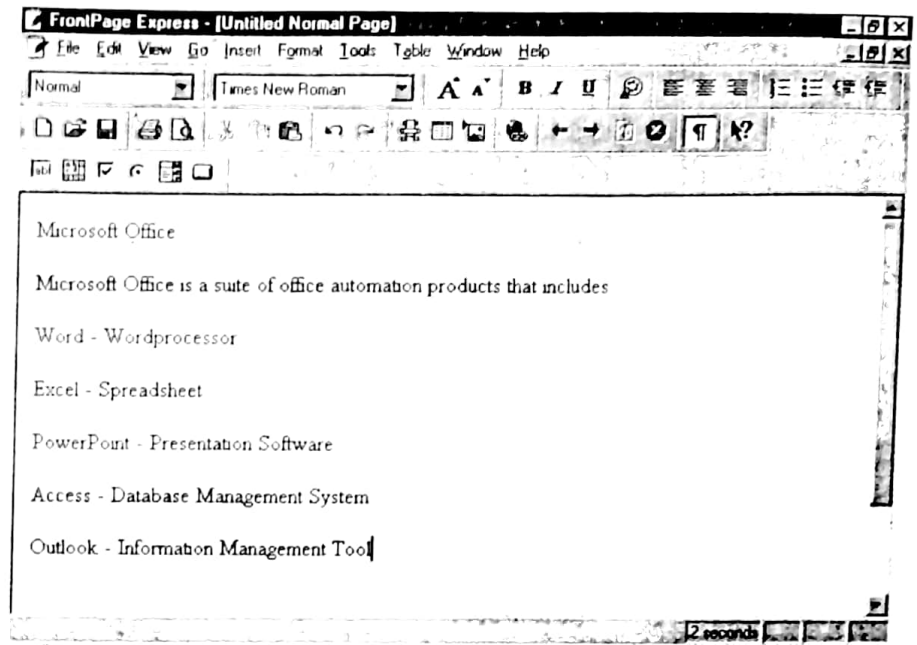


Figure 8

### 1.3.1 Saving the File

1. Click on the menu option 'File'.  
Refer Figure 9.

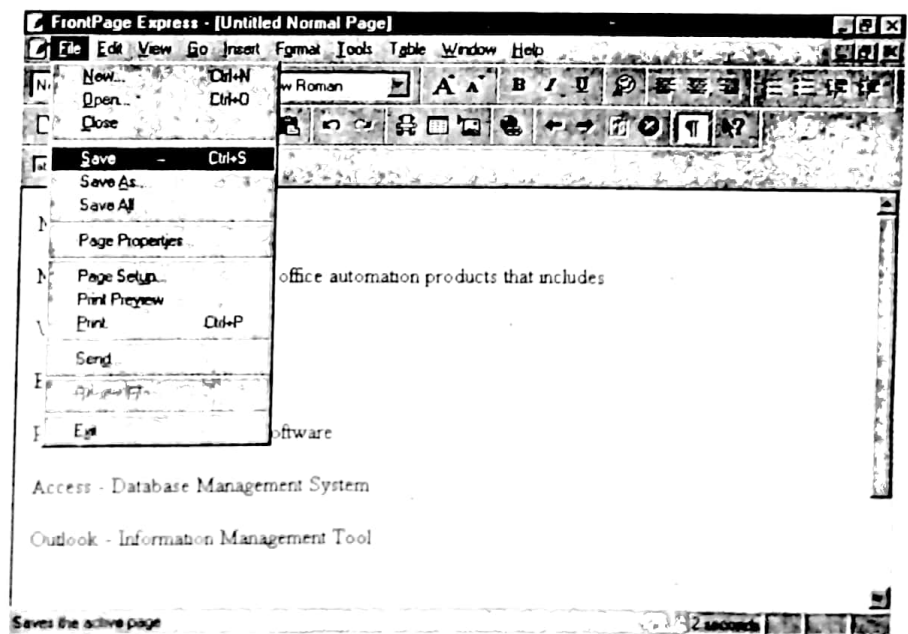


Figure 9

2. Click on the sub-menu option 'Save'.

3. This opens the dialog box titled. 'Save As'. Refer Figure 10.

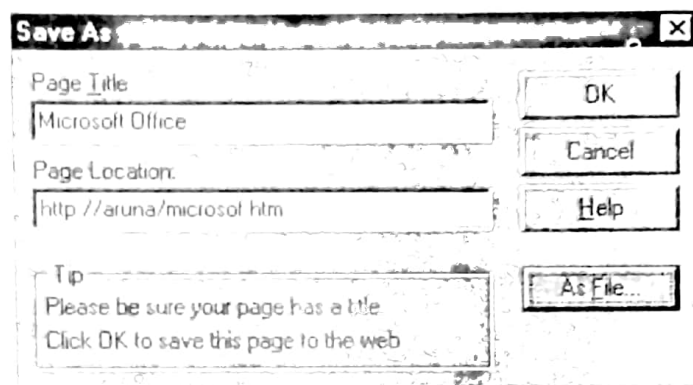


Figure 10

4. Click on the button 'As File...'.  
This opens the dialog 'Save As File'.

5. Click on the folder 'Aptech'.  
Refer Figure 11.

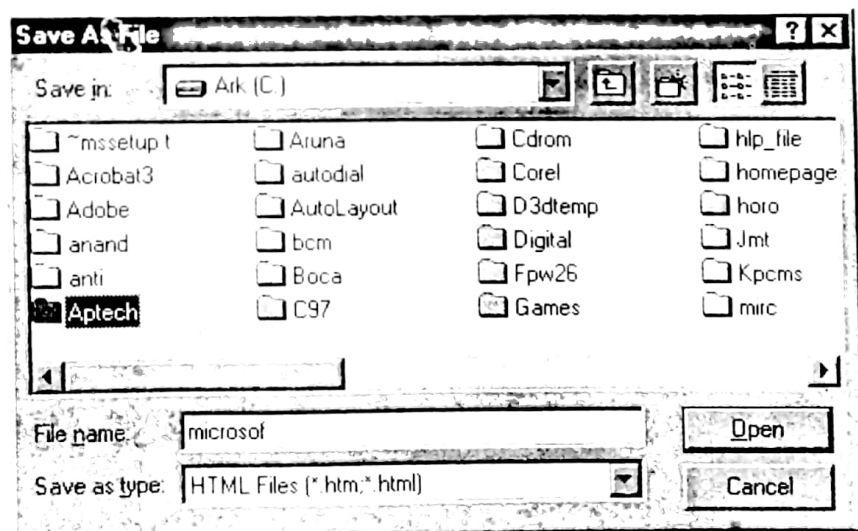


Figure 11



6. **Click on the button 'Open'.**  
This makes *Aptech* the current folder.
7. **Type '*First*' in the 'File name:' text box.**  
Refer Figure 12.

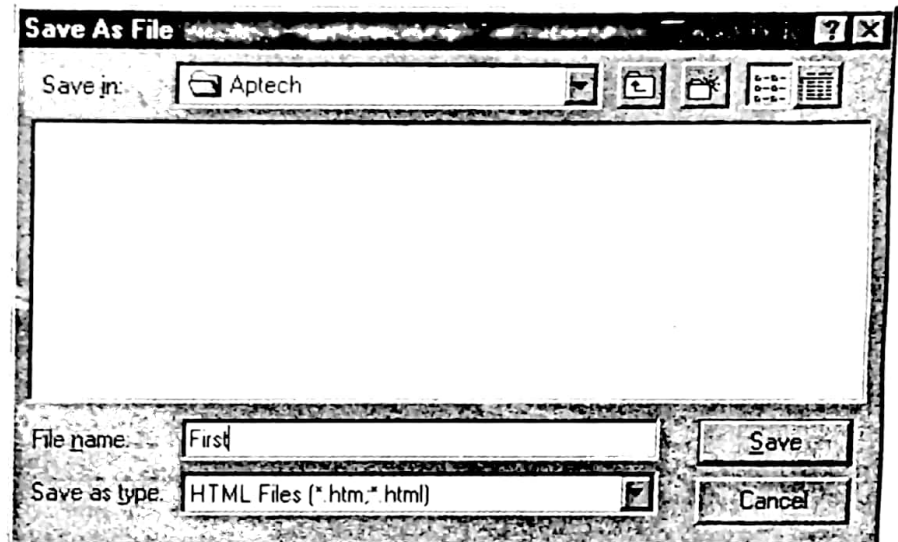


Figure 12

8. **Click on the button 'Save'.**

#### 1.4 Testing the HTML Page

The HTML page created using FrontPage Express will look the same in any browser in which it is opened. We will test the page using Internet Explorer.

1. **Click on the menu option 'File'.**  
Refer Figure 13.
2. **Click on the sub menu option 'Close'.**

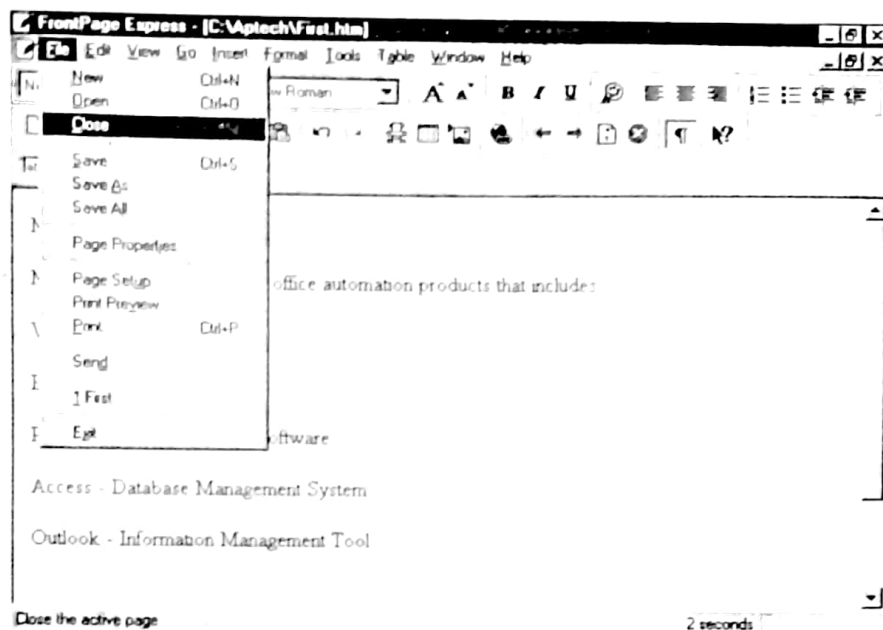


Figure 13

3. Click on the button 'Start' on the taskbar.
  4. Click on the option 'Programs'.
  5. Click on the option 'Internet Explorer'.
- Refer Figure 14.

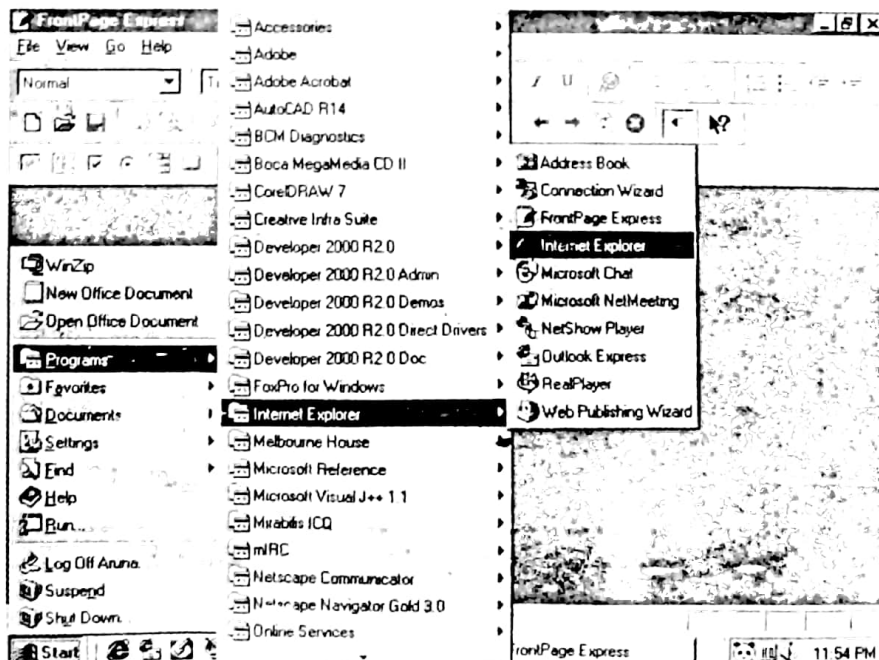
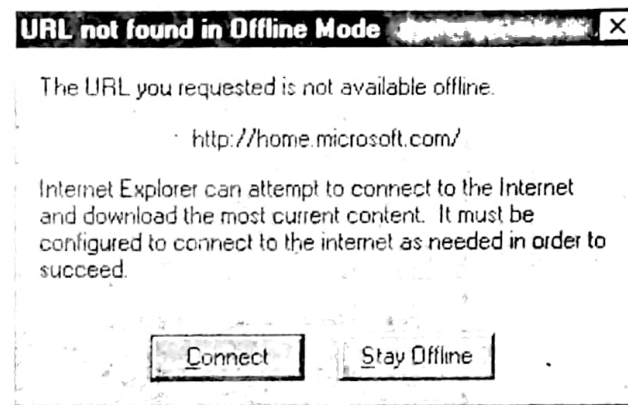


Figure 14

**6. Click on the option 'Internet Explorer'.**

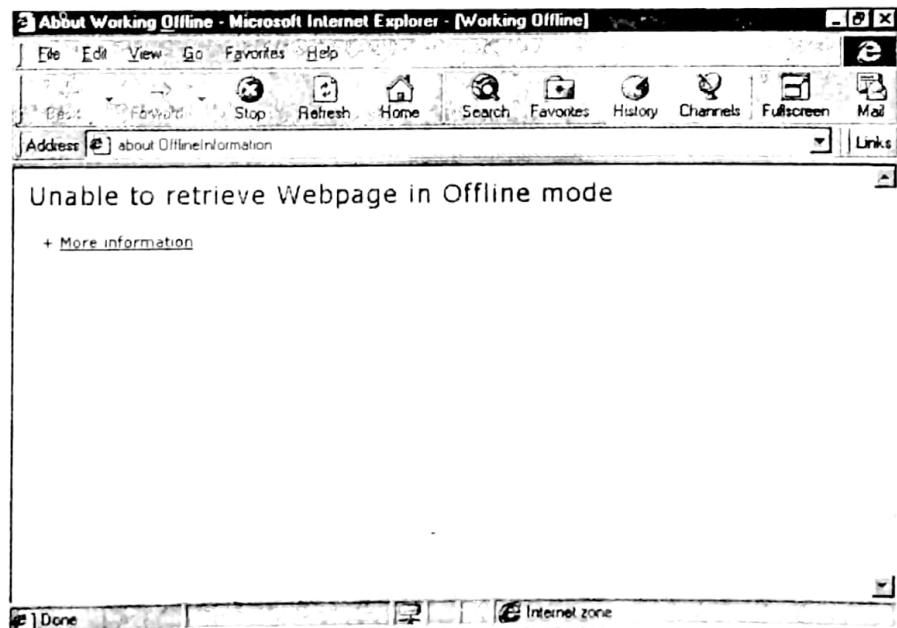
This displays the message box titled 'URL not found in Offline Mode'. Refer Figure 15.



**Figure 15**

**7. Click on the button 'Stay Offline'.**

This starts 'Internet Explorer'. Refer Figure 16.



**Figure 16**

**8. Click on the menu option 'File'.**

Refer Figure 17.

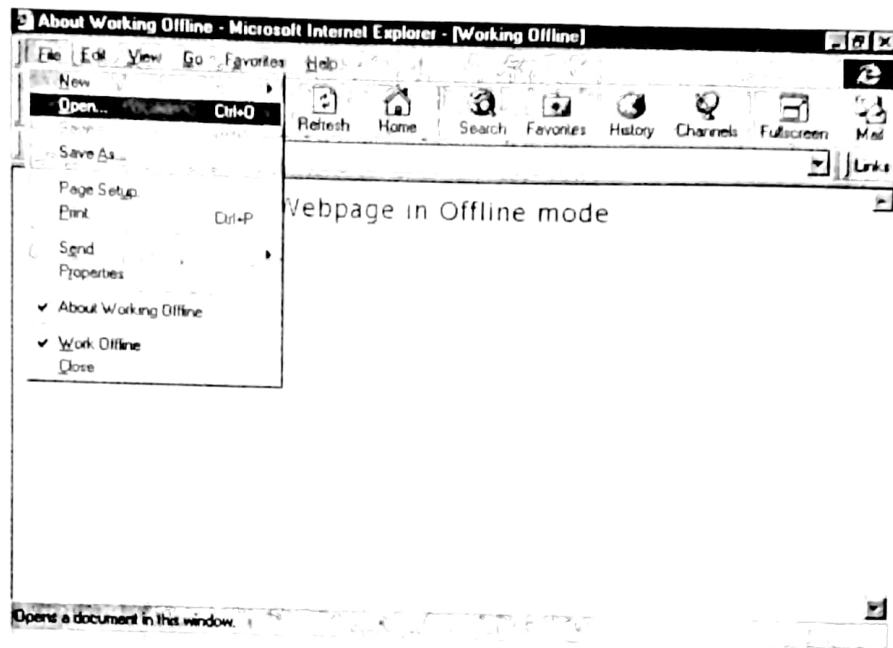


Figure 17

9. Click on the menu option 'Open...'.  
This opens the dialog 'Open'.
10. Specify 'c:\laptech\first.htm' in the text box 'Open:'.  
Refer Figure 18.

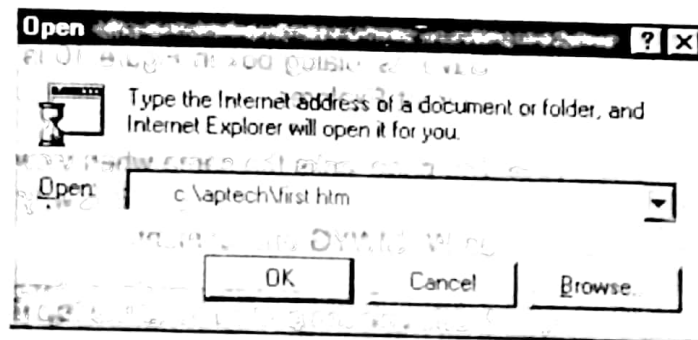


Figure 18

11. Click on the button 'OK'.  
This page *first.htm* is displayed in the Internet Explorer.  
Refer Figure 19.

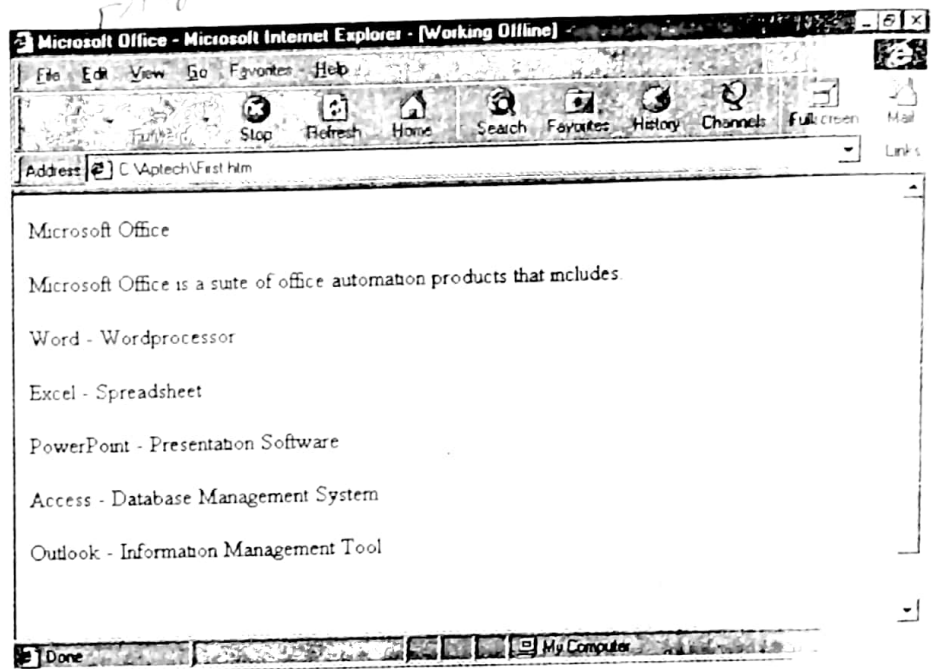


Figure 19

#### 1.4.1 Some Points to Note

Here are a few points to note about the page :

- ➔ The title bar of the Internet Explorer window displays the title *Microsoft Office*. This is called the page title. Refer to **Figure 19** on Page 52. The text displayed in the text box 'Page Title' of the 'Save As' dialog box in Figure 10 is displayed in the title bar of Internet Explorer.
- ➔ The page looks the same when viewed in Internet Explorer as it did in FrontPage Express. This is why FrontPage Express is called as WYSIWYG environment.

**12. Click on the button 'X' at the top right corner of the Internet Explorer.**  
This closes the Internet Explorer.

#### 1.5 A Look at the HTML Code

We have just typed some text in the document and saved it. At this point, we will take a look at the HTML code the FrontPage Express has created in the background.

1. Click on the menu option 'File' of FrontPage Express.  
Refer Figure 20.

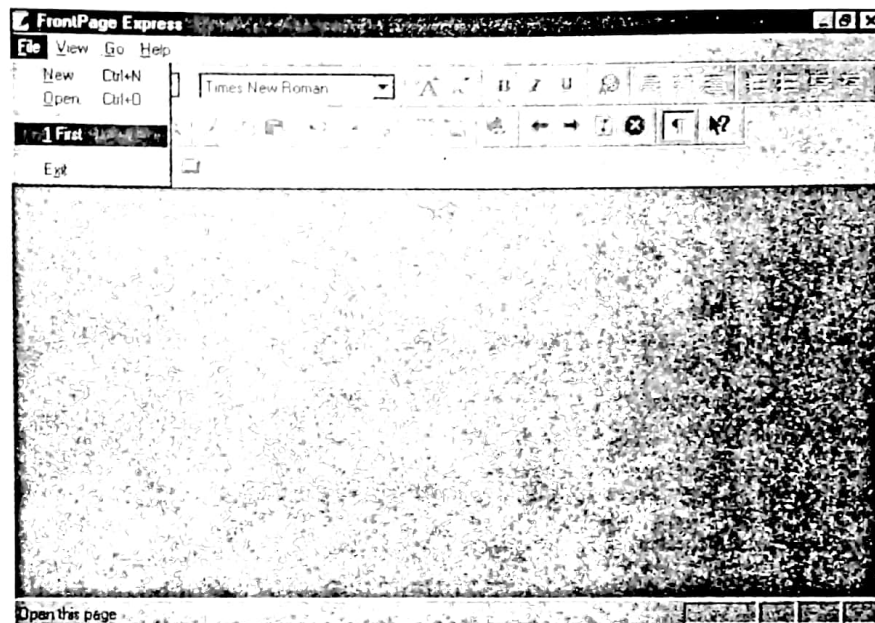


Figure 20

2. Click on the menu option 'Open...'.  
This displays the dialog 'Open File'.
3. Click on the radio button 'From File'.
4. Type '`c:\aptech\first.htm`' in the text box.  
Refer Figure 21.

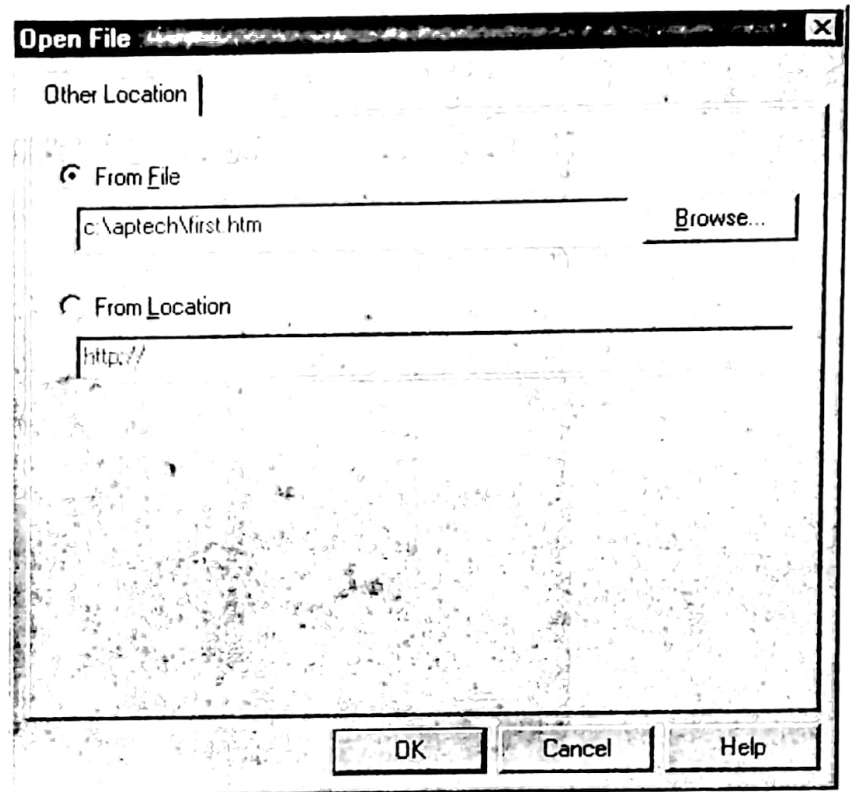


Figure 21

5. **Click on the button 'OK'.**  
This opens the file *first.htm*.
6. **Click on the menu option 'View'.**  
Refer Figure 22.

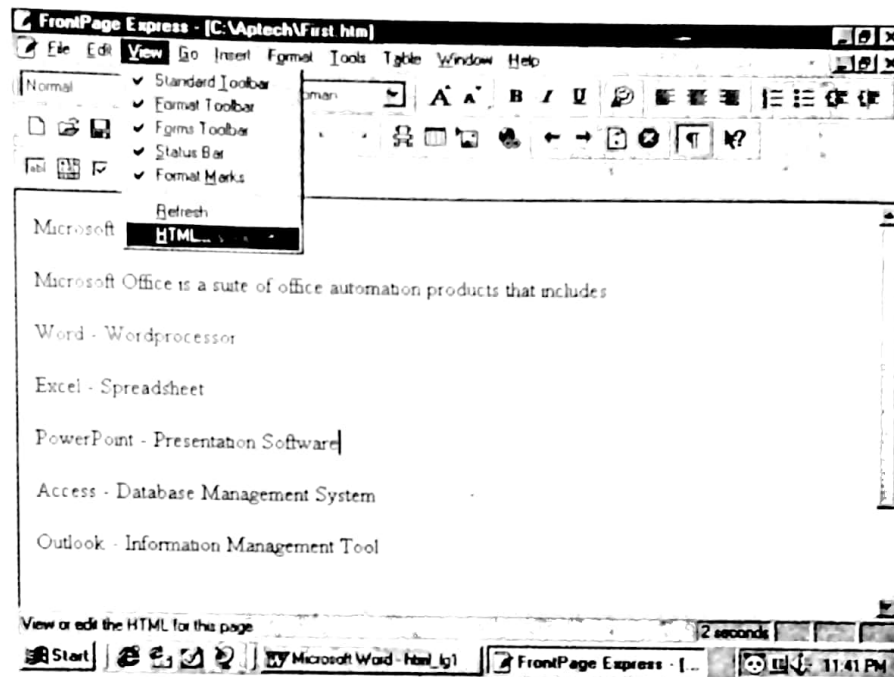


Figure 22

7. Click on the sub menu option 'HTML...'.  
This opens the dialog titled 'View or Edit HTML'. Refer Figure 23.

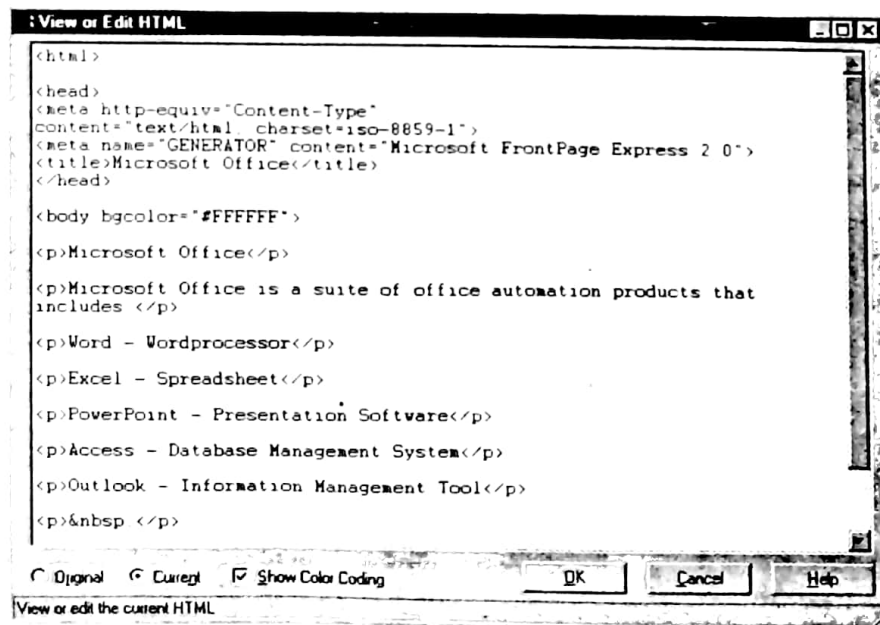


Figure 23



## 1.6 An Explanation

The code created by FrontPage Express for the page *First.htm* is:

```
<html>
<head>
<meta http-equiv="Content-Type"
content="text/html; charset=iso-8859-1">
<meta name="GENERATOR" content="Microsoft FrontPage
Express 2.0">
<title>Microsoft Office</title>
</head>
<body bgcolor="#FFFFFF">
<p>Microsoft Office</p>
<p>Microsoft Office is a suite of office automation products that
includes:</p>
<p>Word - Wordprocessor</p>
<p>Excel - Spreadsheet</p>
<p>PowerPoint - Presentation Software</p>
<p>Access - Database Management System</p>
<p>Outlook - Information Management Tool</p>
<p>&nbsp;</p>
<p>&nbsp;</p>
</body>
</html>
```



### **1.6.1 Basic Structure of the HTML Page**

All HTML pages have the following basic structure :

```
<HTML>  
<HEAD>  
</HEAD>  
  
<BODY>  
</BODY>  
</HTML>
```

### **1.6.2 The Tag <HTML>...</HTML>**

All information in an HTML page is enclosed in tags to indicate its nature.

All HTML documents start with the tag <HTML> and end with </HTML>. All other information is placed between these tags.

Thus, <HTML> defines the start of an HTML page while </HTML> is the end of the page.

### **1.6.3 The Tags <HEAD>...</HEAD>**

The tags <HEAD>...</HEAD> hold information that is not displayed as the main body of the text. It holds information such as the title of the page and the keywords which when searched for will locate this page. )

### **1.6.4 The Tags <TITLE>...</TITLE>**

The tags <TITLE>...</TITLE> are used to enclose the text that is to be displayed as the title of the page. These tags are always placed between the tags <HEAD>...</HEAD> of the HTML page and hold the text to be displayed in the title bar of the browser.

### **1.6.5 The Tags < BODY >...</ BODY>**

All text that is placed between the tags < BODY >...</ BODY> will be displayed as the main body of the web page. This is the text that forms the contents of the web page.

(In addition to text, we can also display graphics, pictures, movie clips etc. as the body of the web page.)



The tag <BODY> has several attributes that are used to set the characteristics of the text. One such attribute is 'BGCOLOR'. This sets the background colour for the web page. The colour in web pages is to be specified using numbers in the hexadecimal format. "#FFFFFF" stands for the colour white.

### 1.6.6 The Tags <P>...</P>

Every paragraph must be enclosed within the tags <P>...</P>.

☞ (HTML does not recognise the press of the <Enter> key as the end of a paragraph.)

8. Click on the button 'OK' of the dialog 'View or Edit HTML'.

## 1.7 Enhancing the HTML Page

### 1.7.1 Bold

We will now display the text 'Microsoft Office' in bold.

1. Select the text '*Microsoft Office*' in the file *first.htm*. Refer Figure 24.

☞ A block of text may be selected by clicking at the start of the block and dragging the mouse till the end of the block with the left mouse button pressed.

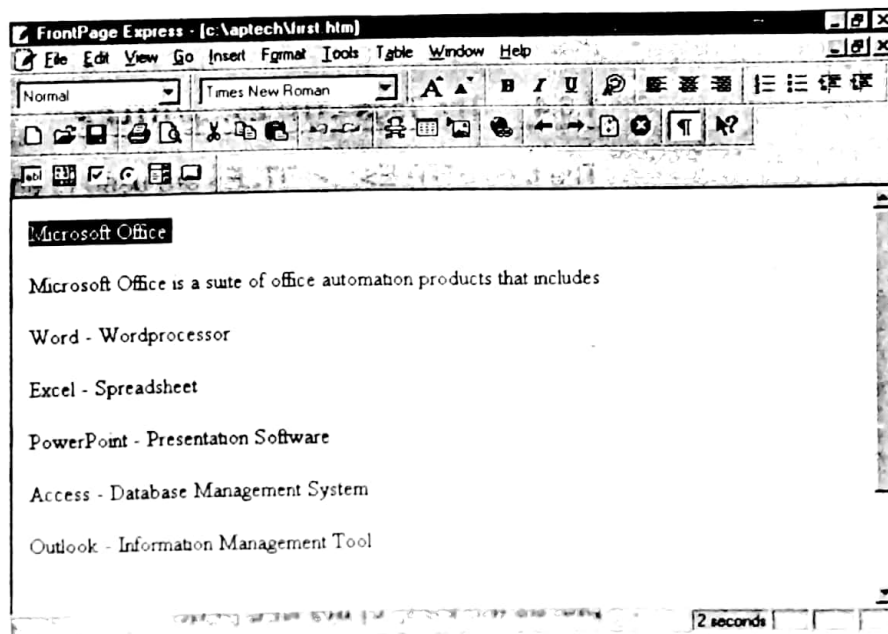


Figure 24

2. **Click on the menu option 'Format'.**  
Refer Figure 25.
3. **Click on the sub menu option 'Font...'**  
This displays the 'Font' dialog box.
4. **Select the option 'Bold' from the 'Font Style:' list box.**  
Refer Figure 26.

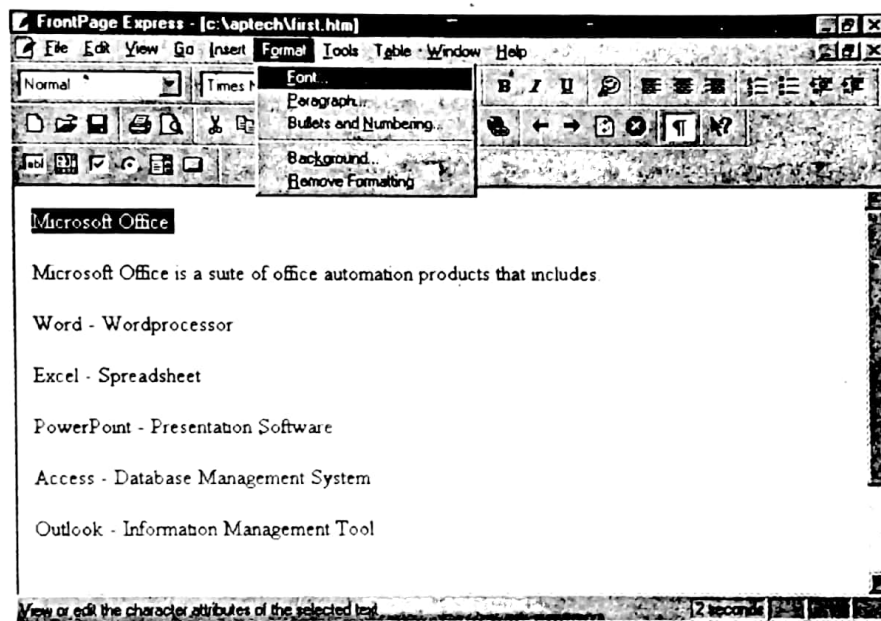


Figure 25

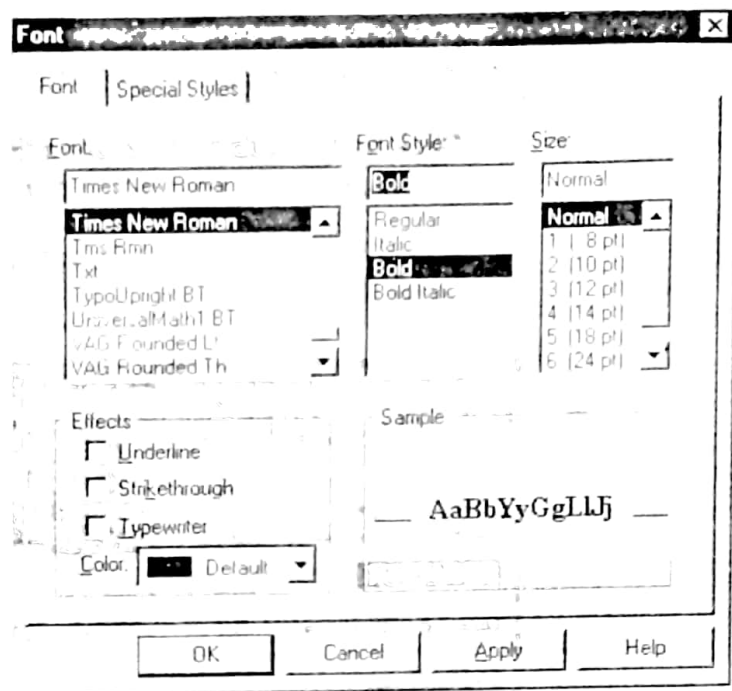


Figure 26

5. Click on the button 'OK'.
6. Click anywhere in the file.  
The text *Microsoft Office* gets displayed in bold. Refer Figure 27.

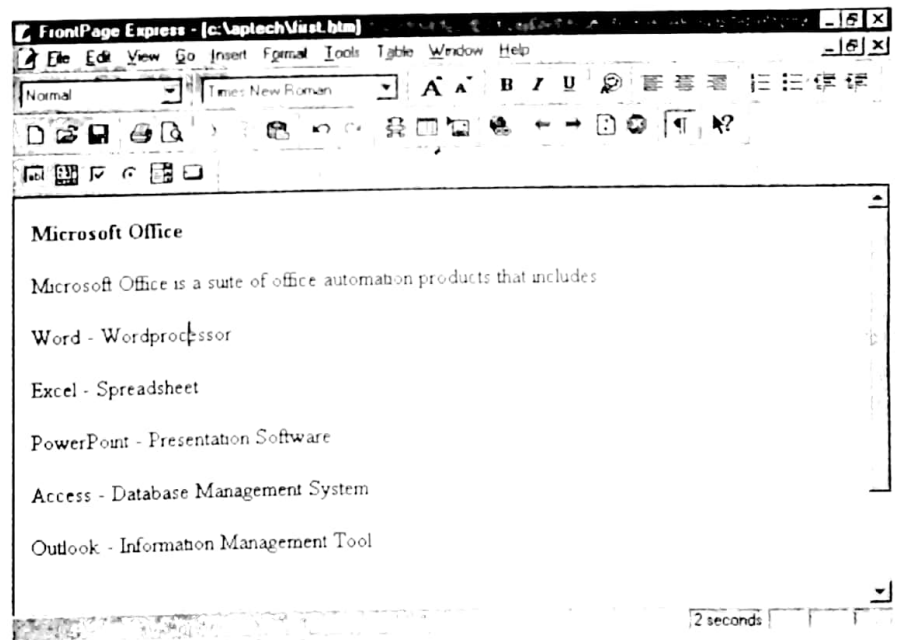


Figure 27

## 1.8 An Explanation

1. Click on the menu option 'View'.
2. Click on the sub menu option 'HTML...'.  
This displays the dialog 'View or Edit HTML'.
3. Consider the line of code :

```
<p><strong>Microsoft Office </strong></p>
```

### 1.8.1 The Tags <STRONG>...</STRONG>

Any text that is enclosed between the tags <STRONG>...</STRONG> gets displayed in bold when the HTML page is viewed in the browser.

### 1.8.2 An Alternative

The tags <B>...</B> can be used instead of <STRONG>...</STRONG>. Any text enclosed within the tags <B>...</B> will produce the same effect as <STRONG>...</STRONG>.

Thus,

```
<strong>Microsoft Office </strong>
```

is equivalent to :

```
<b>Microsoft Office </b>
```

4. Click on the button 'OK' of the dialog 'View or Edit HTML'.

### 1.8.3 Italic

1. Select the text 'Microsoft Office' in the line 'Microsoft Office is a suite of office ....'.
2. Click on the sub menu option 'Font...'.  
This displays the dialog 'Font'.
3. Select the option 'Italic' from the list box 'Font Style:'.
4. Click on the button 'OK'.
5. Click anywhere in the file.

The text *Microsoft Office* gets displayed in italic. Refer Figure 28.

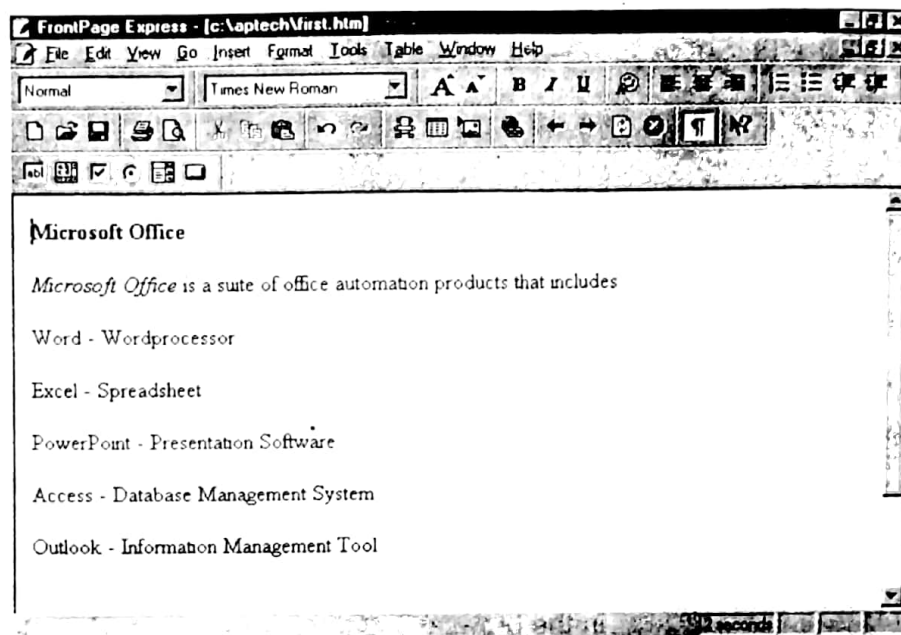


Figure 28

## 1.9 An Explanation

1. View the HTML code of the file.
2. Consider the line :

```
<p><em>Microsoft Office</em> is a suite of office automation
products that includes: </p>
```

### 1.9.1 The Tags <EM>...</EM>

Text that is enclosed in the tags <EM>...</EM> will be displayed in italics.

### 1.9.2 An Alternative to <EM>...</EM>

Text that is to be italicised may also be enclosed in the tags <I>...</I>.

Thus,

```
<em>Microsoft Office</em>
```

is equivalent to :

```
<i>Microsoft Office</i>
```

3. Click on the button 'OK' of the dialog 'View or Edit HTML'.

### 1.10 Nesting Tags

1. Select the text '*office automation*' in the line of text '*Microsoft Office is a suite of office automation....*'.
2. Click on the sub menu option 'Font...'  
This displays the dialog 'Font'.
3. Select the option 'Bold Italic' from the list box 'Font Style:'.
4. Click on the button 'OK'.
5. Click anywhere in the file.

The text *office automation* gets displayed in italic. Refer Figure 29.

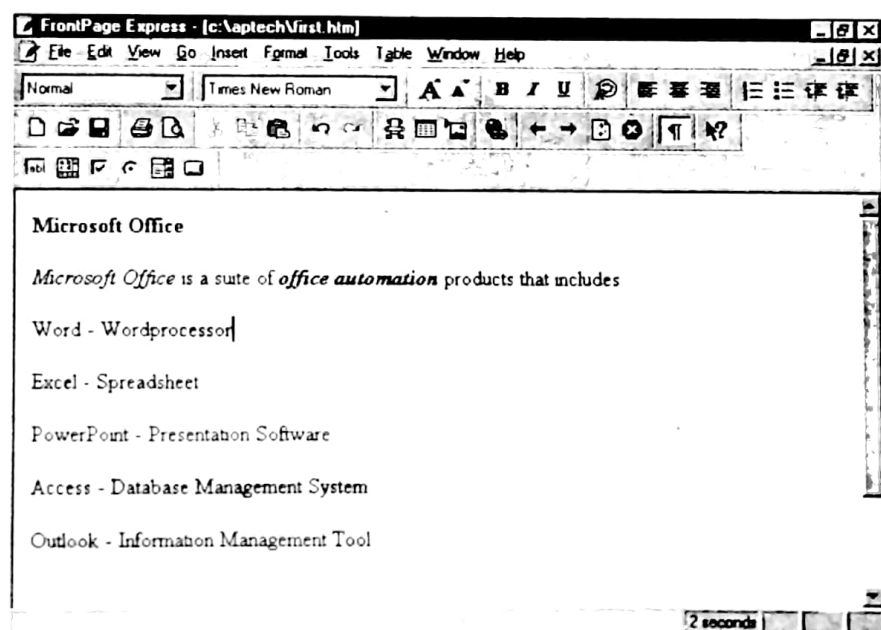


Figure 29

### 1.11 An Explanation

1. View the HTML code.
2. Consider the line :



```
<p><em>Microsoft Office</em> is a suite of <em><strong> office  
automation</strong></em> products that includes:</p>
```

The text *office automation* is enclosed within two sets of two tags :

```
<em><strong>office automation</strong></em>
```

The rule to follow when two or more sets of tags are applied is that the tags that is applied last ends first. Thus, tags are to be applied in the order :

```
<tag 1> <tag 2>...<tag N>.....</tag N> ...</tag2></tag1>
```

**3. Click on the button 'OK' of the dialog 'View or Edit HTML'.**

### 1.12 Bulleted Lists

**4. Select the lines :**

Word - Wordprocessor

Excel - Spreadsheet

PowerPoint - Presentation Software

Access - Database Management System

Outlook - Information Management Tool

**5. Select the menu option 'Format'.**

Refer Figure 30.

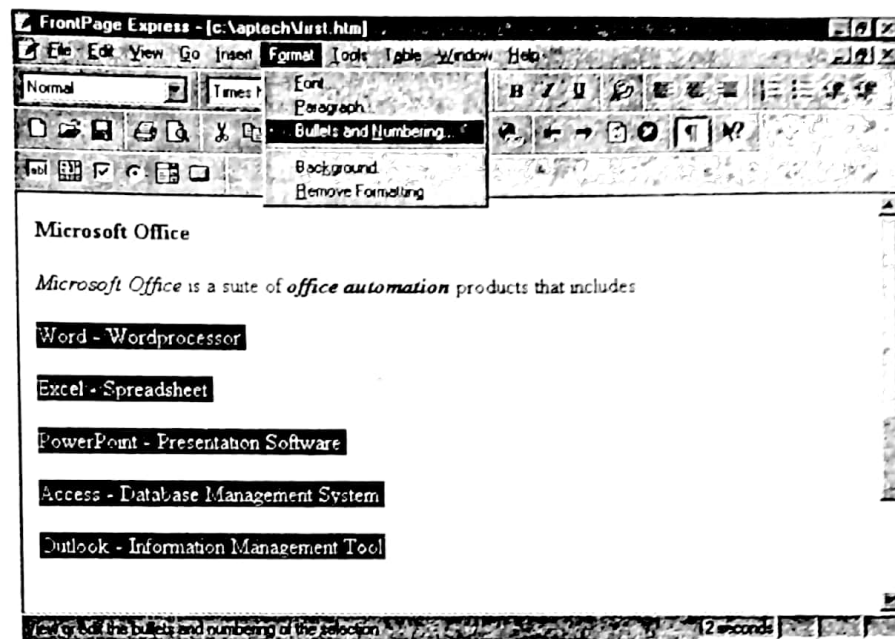


Figure 30

6. **Select the sub option 'Bullets and Numbering...'.**  
This displays the dialog 'List Properties'.
7. **Select the tab 'Bulleted'.**
8. **Select the second option in the first row.**  
Refer Figure 31.

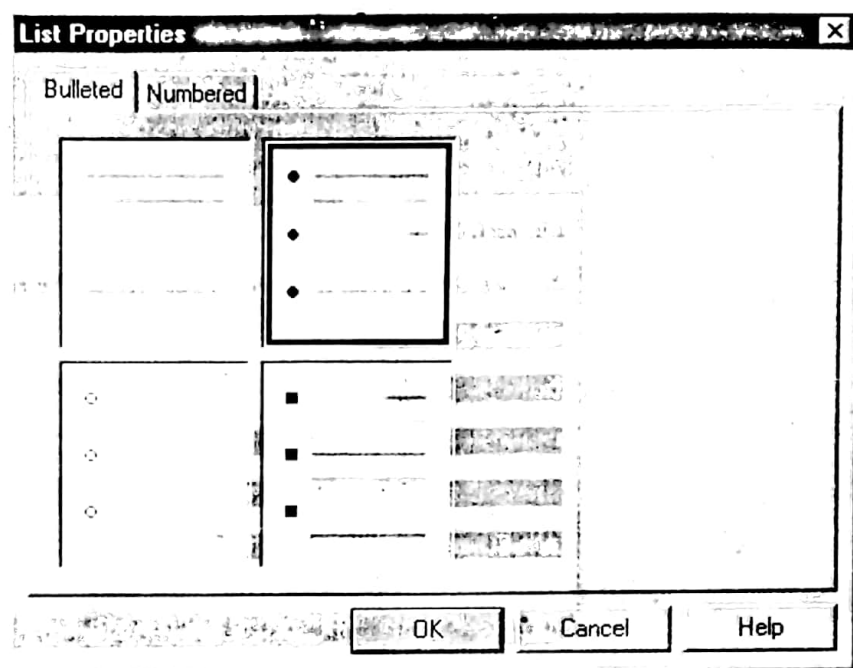


Figure 31

9. Click on the button 'OK'.

The selected list is given bullets. Refer Figure 32.

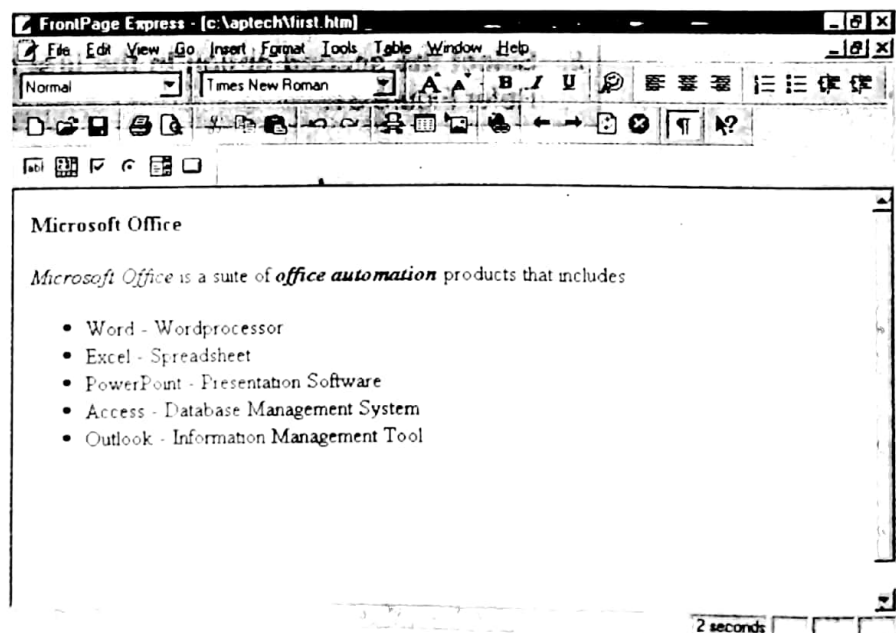


Figure 32



### 1.13 An Explanation

1. View the HTML code.

2. Consider the lines :

```
<ul type="disc">
    <li>Word - Wordprocessor</li>
    <li>Excel - Spreadsheet</li>
    <li>PowerPoint - Presentation Software</li>
    <li>Access - Database Management System</li>
    <li>Outlook - Information Management Tool</li>
</ul>
```

#### 1.13.1 The Tags <UL>...</UL>

Bulleted lists are referred to as unordered lists.

The tag <UL> indicates the start of a bulleted list while </UL> signals the end of the bulleted list. The attribute 'TYPE' indicates the type of the bullet to be used.

#### 1.13.2 The Tags <LI>...</LI>

Each bulleted item is to be enclosed in the tags <LI>...</LI>.

3. Click on the button 'OK' of the dialog 'View or Edit HTML'.

### 1.14 Numbered Lists

1. Select the lines :

- Word - Wordprocessor
- Excel - Spreadsheet
- PowerPoint - Presentation Software
- Access - Database Management System
- Outlook - Information Management Tool

2. **Select the menu option 'Format'.**
3. **Select the sub option 'Bullets and Numbering...'.  
This displays the dialog 'List Properties'.**
4. **Select the tab 'Numbered'.**
5. **Select the second option in the first row.  
Refer Figure 33**

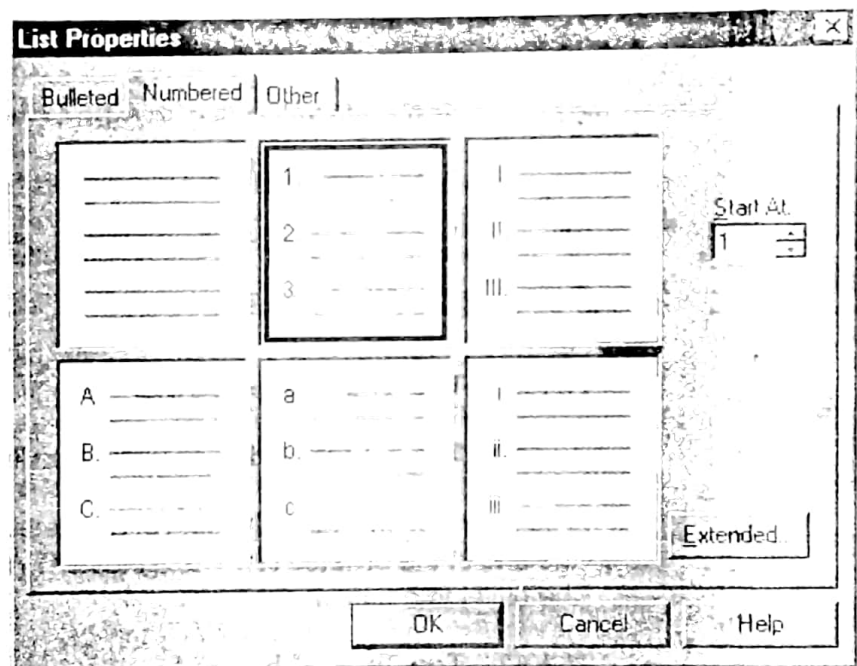


Figure 33

6. **Click on the button 'OK'.  
The text is displayed as a numbered list. Refer Figure 34.**

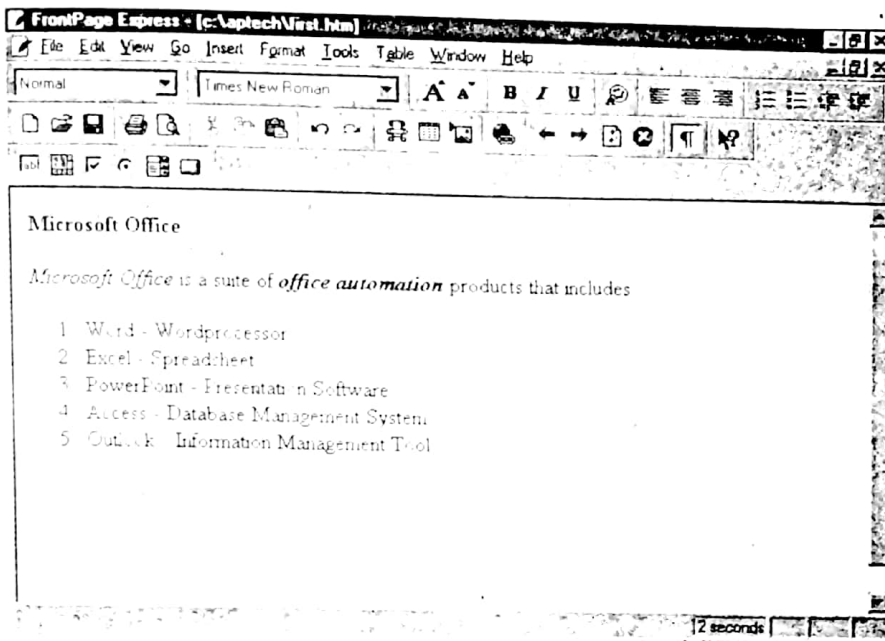


Figure 34

### 1.15 An Explanation

#### 1. View the HTML code.

#### 2. Consider the lines :

```
<ol type="1" start="1">
    <li>Word - Wordprocessor</li>
    <li>Excel - Spreadsheet</li>
    <li>PowerPoint - Presentation Software</li>
    <li>Access - Database Management System</li>
    <li>Outlook - Information Management Tool</li>
</ol>
```



### 1.15.1 The Tags <OL>...</OL>

Numbered lists are referred to as ordered lists.

The tag <OL> indicates the start of a numbered list while </OL> signals the end of the list. The attribute 'TYPE' indicates the type of the numbering to be used. The attribute 'START' indicates the value at which numbering should start.

Thus, the line :

```
<ol type="1" start="1">
```

indicates that number format to be used is 1,2...etc. and the numbering should start at 1.

### 1.15.2 The Tags <LI>...</LI>

Each numbered item is to be enclosed in the tags <LI>...</LI>.

**3. Click on the button 'OK' of the dialog 'View or Edit HTML'.**

## 1.16 Saving the File

- 1. Click on the menu option 'File'.**
- 2. Click on the sub option 'Save'.**

## 1.17 Closing the File

- 1. Click on the menu option 'File'.**
  - 2. Click on the sub option 'Close'.**
- This closes the file.  
Refer Figure 1.15.

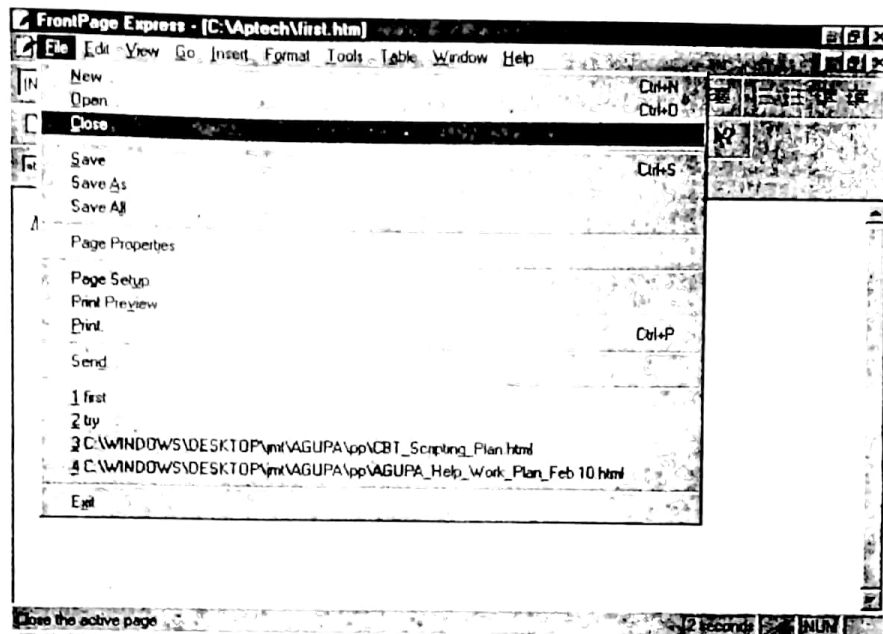


Figure 35

### 1.18 Creating a New File

1. **Click on the menu option 'File'.**
2. **Click on the sub option 'New...'.**  
This displays the dialog 'New Page'.
3. **Select the option 'Normal Page'.**  
Refer Figure 36.
4. **Click on the 'OK' button.**  
This displays a blank page.



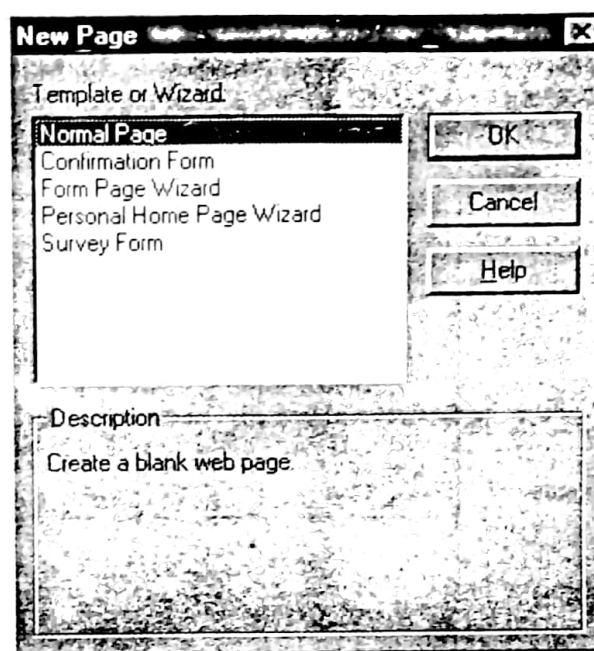


Figure 36

5. Type the following text in the new page that is displayed.

Some More Formatting Options in HTML

Setting Text Attributes

In this section, we will learn to set text attributes such as :

Colour

Font

First, we will learn to set attributes for the selected text and later will set the attributes for the whole document.

Setting Document Properties

Some of the attributes that can be set at the document level are :

Background

Text

In this section, we will learn to set attributes that affect the document as a whole.

### Setting Background Characteristics

We can specify the colour or the image that is to be used as the background for the document.

### Setting Text Characteristics

It is possible to set text attributes for the entire document. This includes the font face, font size and colour.

6. Save the file in 'c:\lptech' as 'text\_attr.htm'.

#### 1.18.1 Formatting Selected Text

1. Select the text '*Some More Formatting Options in HTML*'.
2. Click on the menu option 'Format'.
3. Click on the option 'Font...'.
4. Select 'Arial' from the list box 'Font'.
5. Select 'Bold' from the list box 'Font Style'.
6. Select '5 (18 pt)' from the list box 'Size'.
7. Select 'Red' from the drop down list box 'Color'.  
Refer Figure 37.

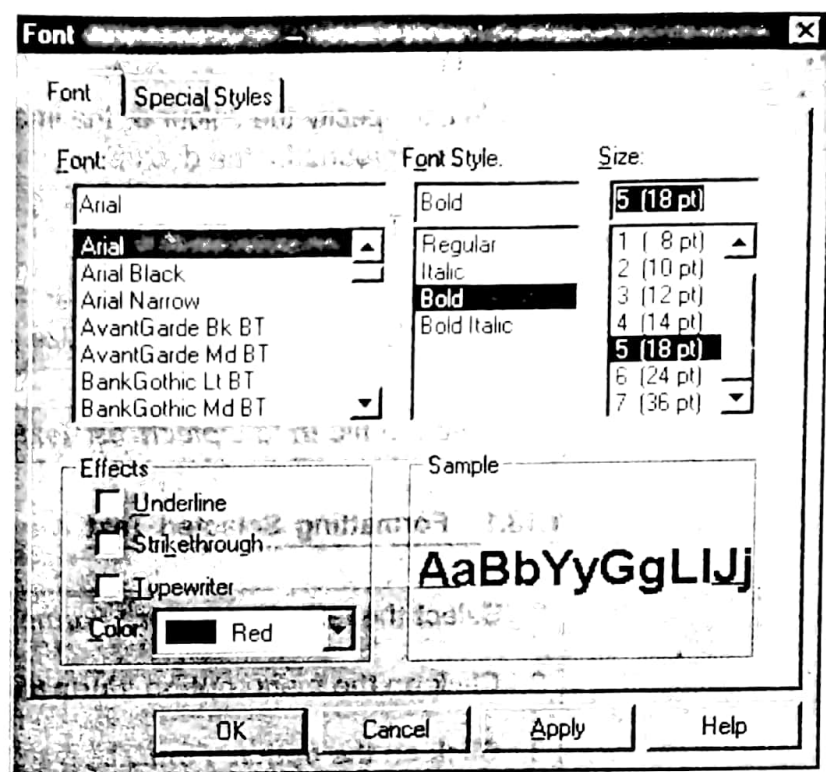


Figure 37

8. Click on the button 'OK'.

The look of the text changes to reflect the choices made in the dialog 'Font'. Refer Figure 38.

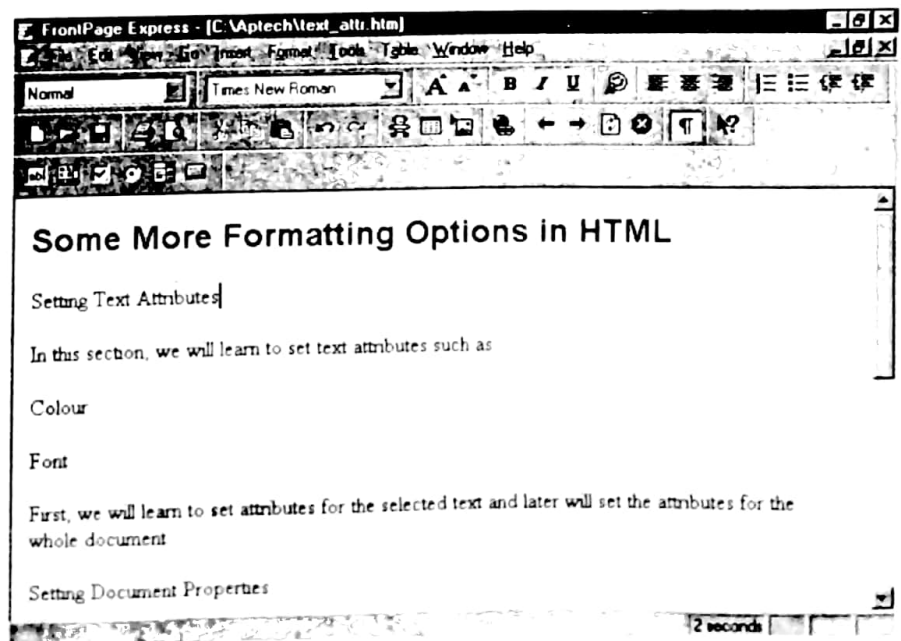


Figure 38



### 1.18.2 An Explanation

1. View the HTML code.
2. Consider the line :

```
<font color="#FF0000" size="5" face="Arial"><strong>Some  
More Formatting Options in HTML</strong></font>
```

### 1.18.3 The Tags <FONT>...</FONT>

The tags <FONT>...</FONT> are used to specify the font that should apply to the text included between them. The attributes that can be specified with these tags are:

#### ➤ COLOR

Specifies the colour to be used. HTML uses a special hexadecimal number system to specify the colours to be used.

#### ➤ SIZE

This attribute specifies the size of the font. HTML uses "relative" size specifications. All text sizes are specified with respect to the default size. "SIZE = 1" means that the text should be one size bigger than the default while "SIZE = -1" means one smaller than default. Default size of the font is the size that you have been seeing so far on the screen.

#### ➤ FACE

This attribute is to be assigned a string value that is the name of the font to be used.

3. Click on the button 'OK' of the dialog 'View or Edit HTML'.

## 1.19 Headings

HTML provides six levels of headings. The headings are applied using the tags :

- Level 1 - <H1>...</H1>
- Level 2 - <H2>...</H2>
- Level 3 - <H3>...</H3>
- Level 4 - <H4>...</H4>
- Level 5 - <H5>...</H5>

➡ Level 6 - <H6>...</H6>

The use of the heading tags helps in ensuring a uniform look and feel for the document.

1. Select the text '*Setting Text Attributes*'.
2. Select drop down list box 'Change Style' in the Formatting toolbar.  
Refer Figure 39.

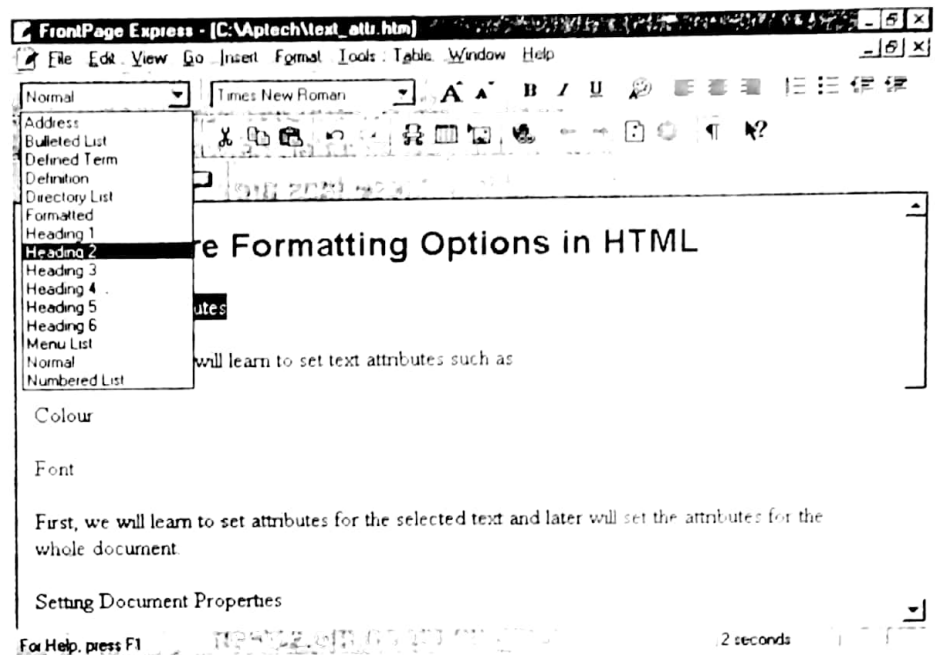


Figure 39

3. Click the option 'Heading 2' in the list box.  
The text changes look to match the style of Heading 2.
4. Select the text '*Setting Document Properties*'.
5. Select the option 'Heading 2' from the drop down list box 'Change Style' in the Formatting toolbar.  
Refer Figure 40.
6. Select the text '*Setting Background Characteristics*'.
7. Select the option 'Heading 3' from the drop down list box 'Change Style' in the Formatting toolbar.

- Refer Figures 41.





## 1.20 An Explanation

1. View HTML code.
2. Consider the lines of code :

```
<h2>Setting Text Attributes</h2>

    //Other code here

<h2>Setting Document Properties</h2>

    //Other code here

<h3>Setting Background Characteristics</h3>

    //Other code here

<h3>Setting Text Characteristics</h3>
```

### 1.20.1 The Tags <H2>...</H2>

Text that is enclosed within these tags is displayed in the default style of Heading 2.

### 1.20.2 The Tags <H3>...</H3>

Text that is enclosed within these tags is displayed in the default style of Heading 3.

3. Click on the button 'OK' of the dialog 'View or Edit HTML'.

## 1.21 Setting Document Characteristics

### 1.21.1 Background Color

1. Click on the menu option 'Format'.  
Refer Figure 42.

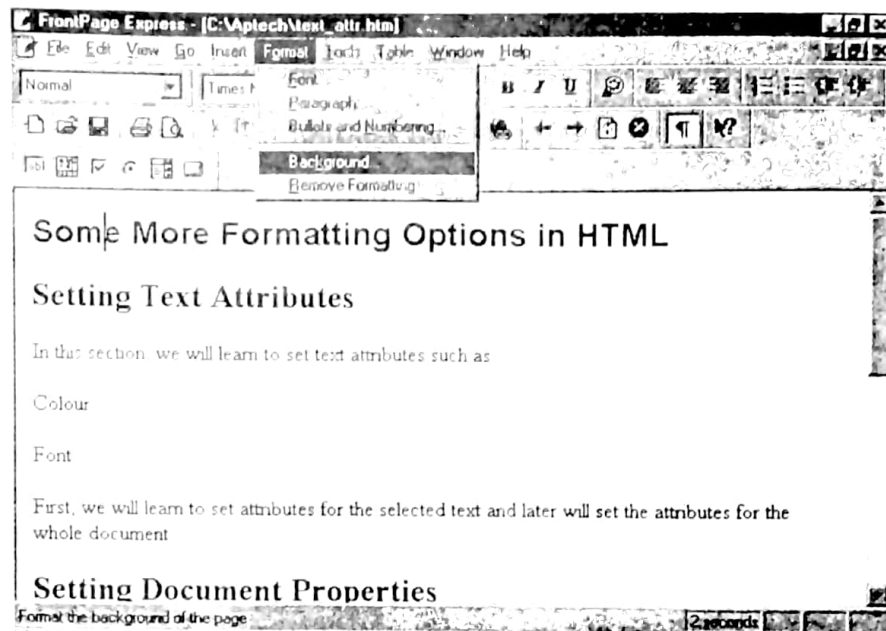


Figure 42

2. Click on the sub option 'Background...'.

This opens the dialog 'Page Properties' with the tab 'Background' selected. Refer Figure 43.

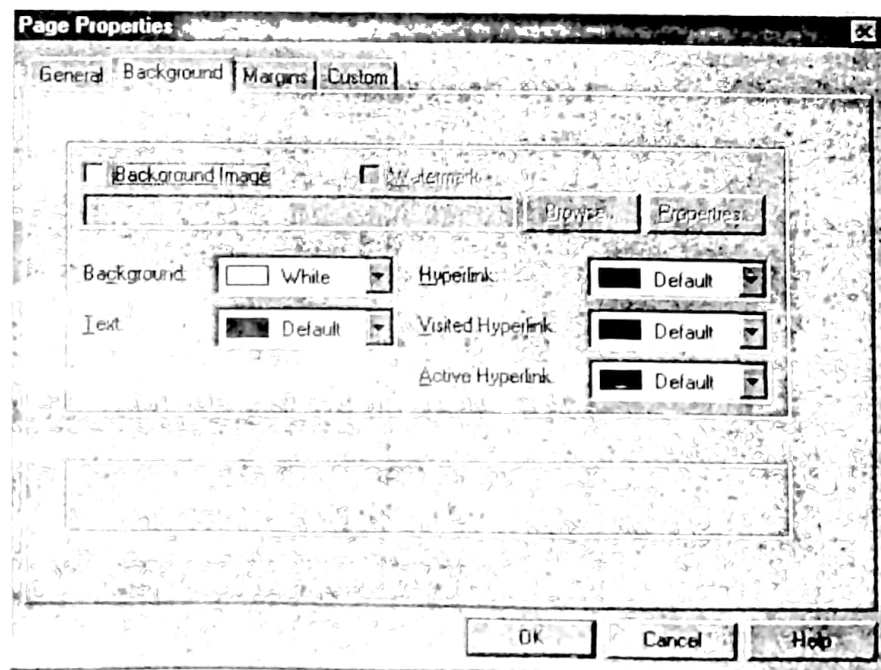


Figure 43



3. Select the colour 'Silver' from the list box 'Background'. Refer Figure 44.
4. Click on the button 'OK'.  
The page background changes to silver gray.

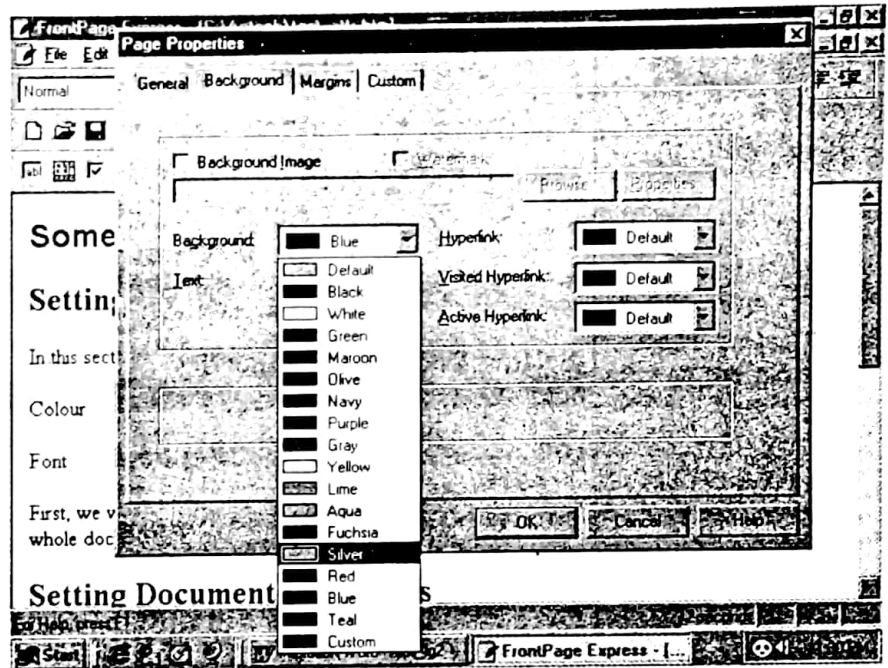


Figure 44

### 1.21.2 An Explanation

1. View the HTML code.
2. Consider the line :

```
<body bgcolor="#C0C0C0"> for silver
```

### 1.21.3 More on the Tag <BODY>...</BODY>

The attribute BGCOLOR of the tag <BODY> is used to specify the background colour for the document.

3. Click on the button 'OK' of the dialog 'View or Edit HTML'.

### 1.21.4 Background Picture

1. Click on the menu option 'Format'.
2. Click on the option 'Background...'
3. Select the checkbox 'Background Image'.  
Refer Figure 45.

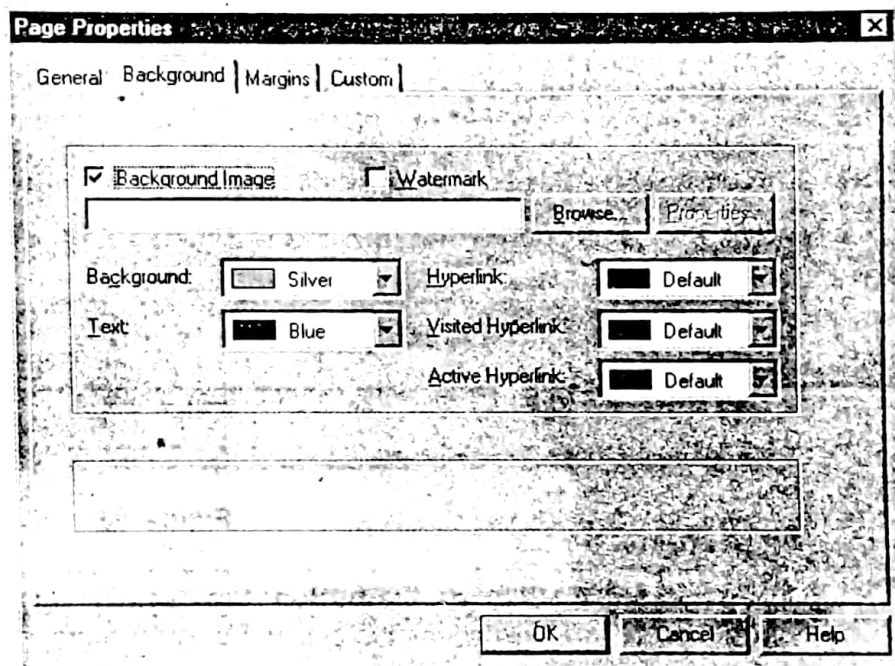


Figure 45

4. Click on the button 'Browse...'.  
This opens the dialog 'Select Background Image...'.
5. Select the radio button 'From File'.
6. Type 'c:\' in the text box.  
Refer Figure 46.

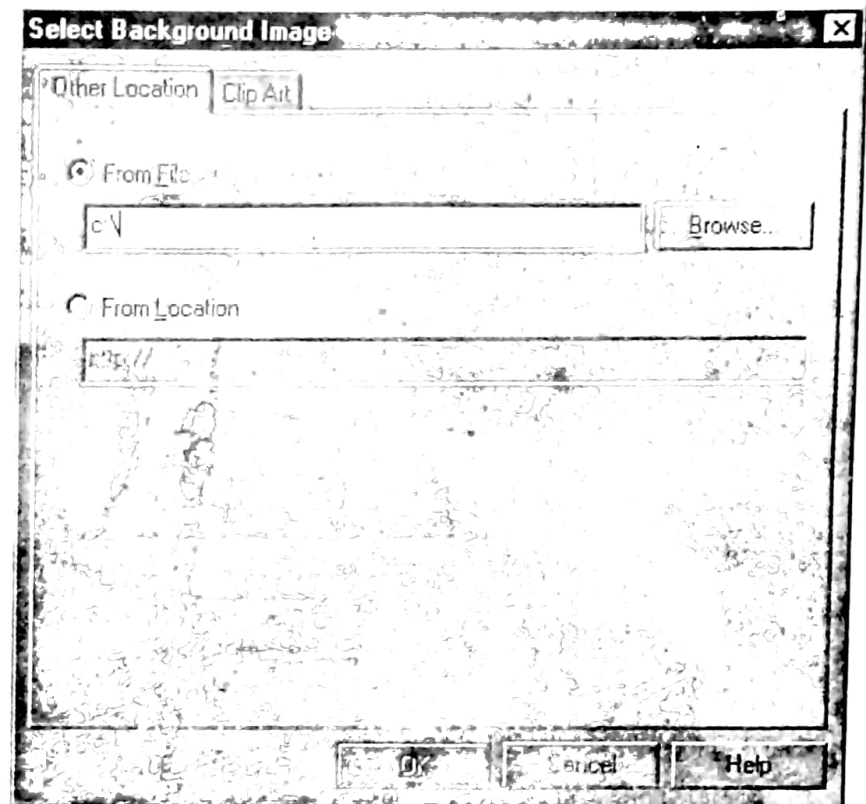


Figure 46

7. **Click on the button 'Browse...'.**  
This opens the dialog 'Select Background Image'.
8. **Select the folder 'Program Files'.**  
Refer Figure 47.
9. **Click on the button 'Open'.**

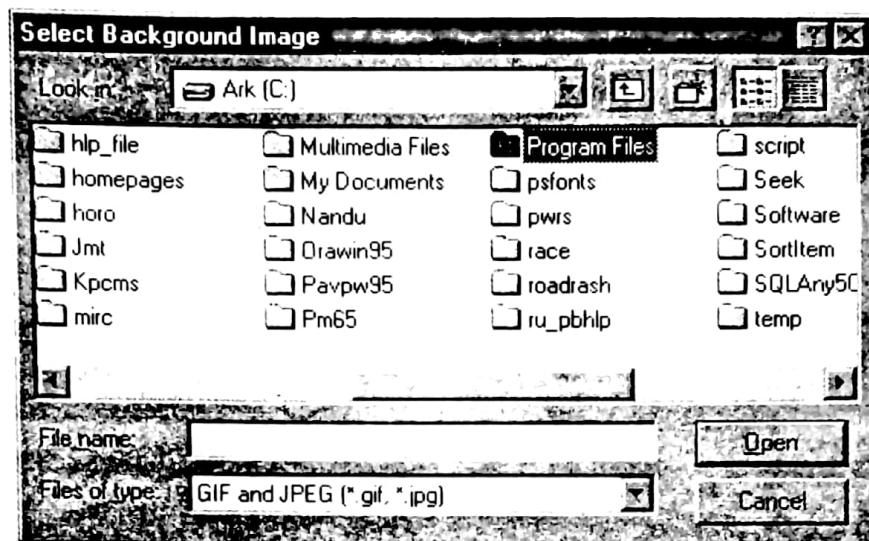


Figure 47

10. Select the folder 'Microsoft Office'.
  11. Click on the button 'Open'.
  12. Select the folder 'Clipart'.
  13. Click on the button 'Open'.
  14. Select the folder 'Backgrounds'.
  15. Click on the button 'Open'.
  16. Select the file 'Club Deco'.
  17. Click on the button 'Open'.
- Refer Figure 48.

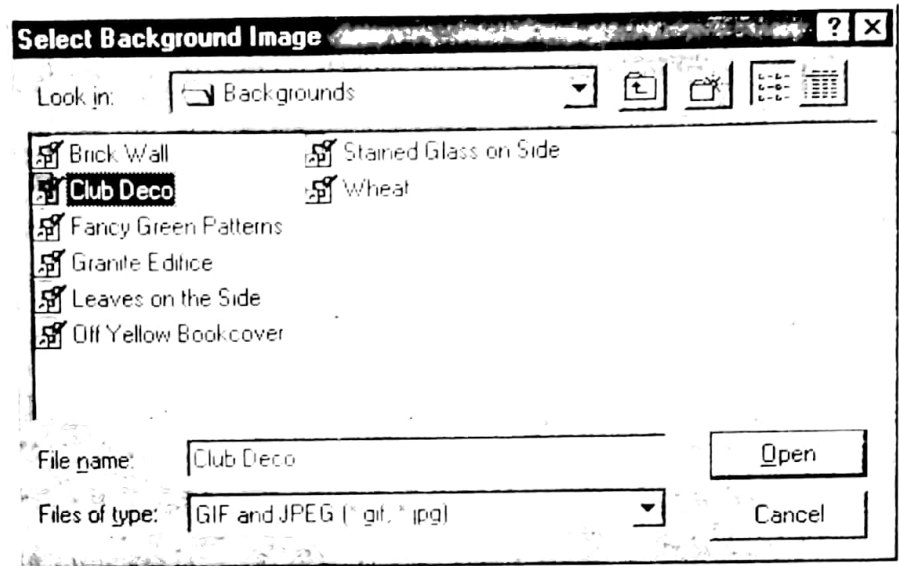


Figure 48

18. Click on the button 'OK' of the dialog 'Page Properties'.  
The selected background image gets displayed. Refer Figure 49.

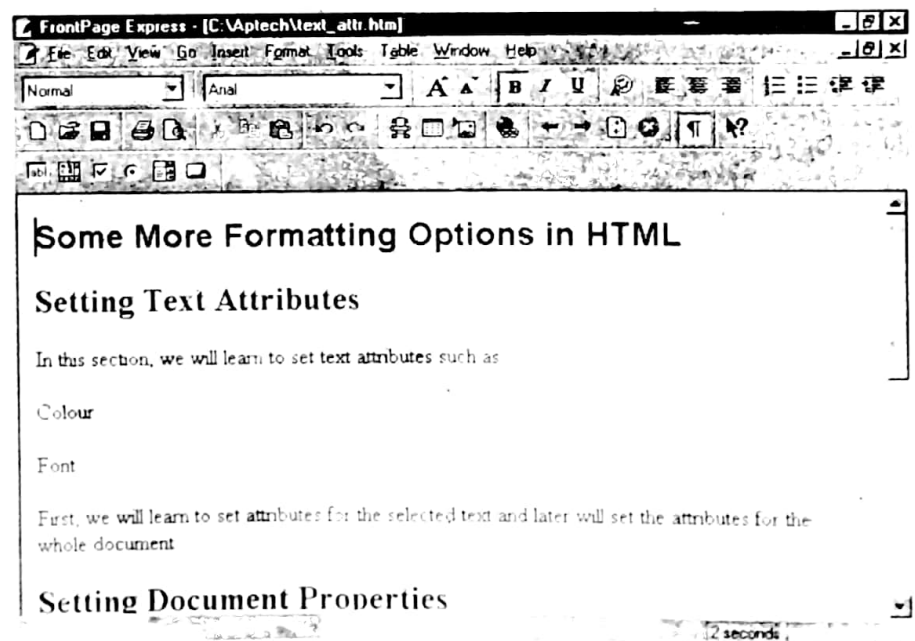


Figure 49



## 1.22 An Explanation

19. View the HTML code.

20. Consider the line :

```
<body
background="..\Program%20Files/Microsoft%20Office/Office
Web%20Page%20Templates/Styles/Club%20Deco.gif"
bgcolor="#C0C0C0" bgproperties="fixed">
```

21. Click on the button 'OK' of the dialog 'View or Edit HTML'.

### 1.22.1 Attribute BACKGROUND of the Tag <BODY>...</BODY>

The attribute BACKGROUND of the Tag <BODY> is used to specify the image file that is to be used as background.

☞ When both the attributes, BACKGROUND and BGCOLOR, are set the value set by BACKGROUND takes precedence.

## 1.23 Default Text Color

1. Click on the menu option 'Format'.
  2. Click on the option 'Background...'
  3. Select the option 'Blue' from the list box 'Text Color'.
  4. Click on the button 'OK'.
- Default text colour changes to blue.

## 1.24 An Explanation

1. View the HTML code.

2. Consider the line :

```
<body
background="..\Program%20Files/Microsoft%20Office/Office/
Web%20Page%20Templates/Styles/Club%20Deco.gif"
bgcolor="#C0C0C0" text="#0000FF" bgproperties="fixed">
```

### 1.24.1 Attribute TEXT of the Tag <BODY>...</BODY>

The attribute TEXT of the Tag <BODY> is used to specify the default colour to be for the text..

- 3 Click on the button 'OK' of the dialog 'View or Edit HTML'.

### 1.25 Exiting From FrontPage Express

1. Save the file.
2. Click on the menu option 'File'.
3. Click on the sub option 'Exit'.

The Next 1 Hour :

1. Create pages as shown in Figures 50, 51 and 52.
2. Save the files as **word.htm**, **excel.htm** and **powerpoint.htm** respectively, in the folder **c:\aptech\**.
3. The pages must have the displayed title and formatting.

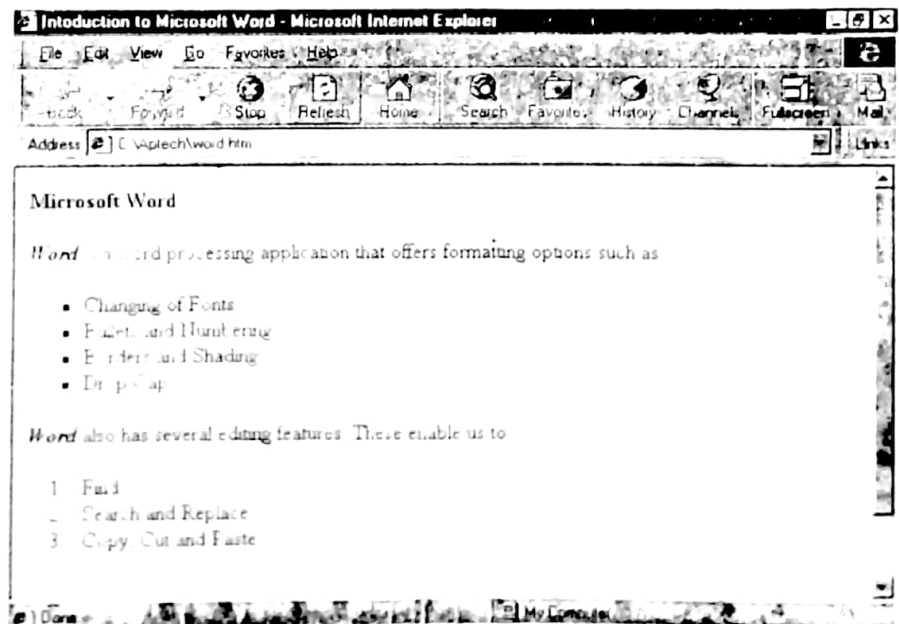


Figure 50

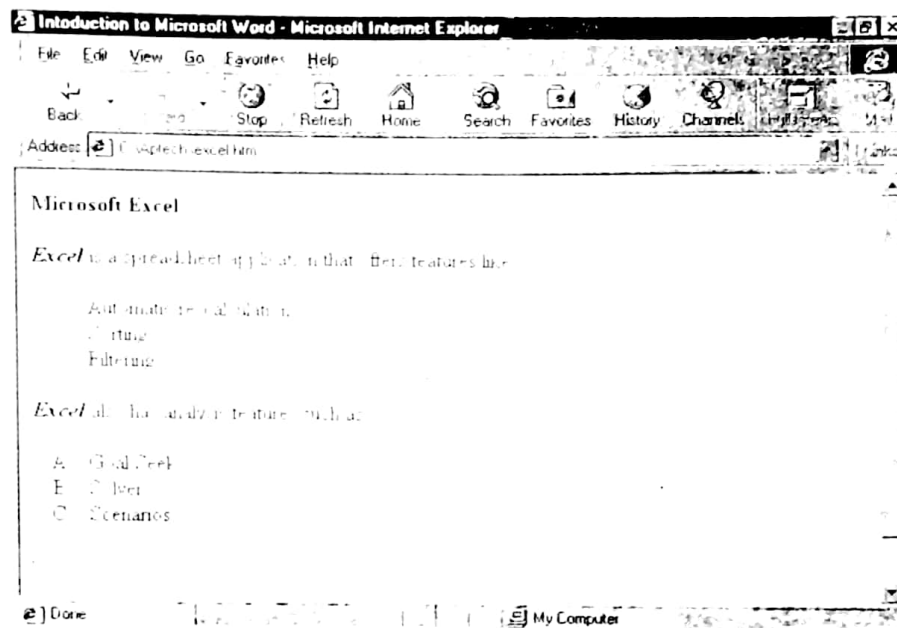


Figure 51

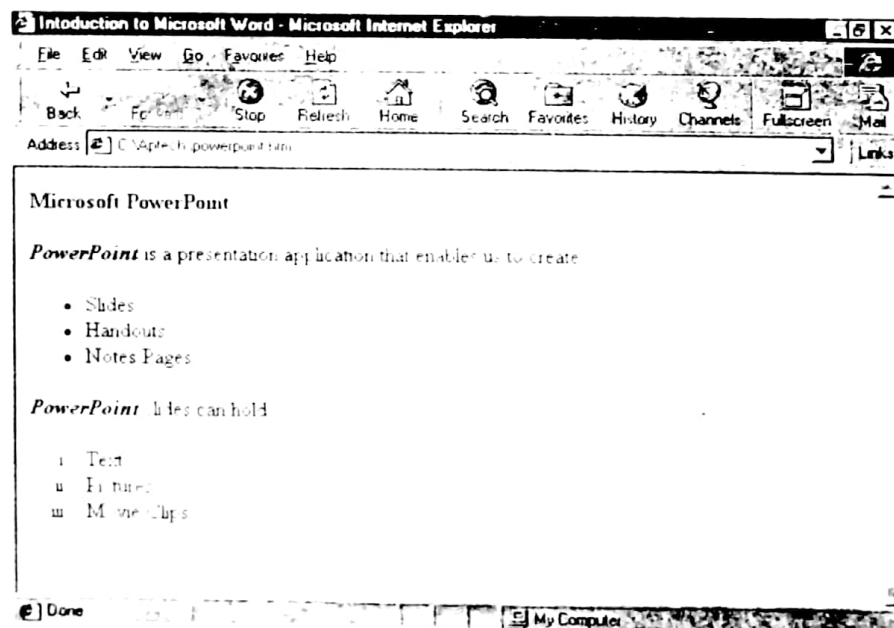


Figure 52

4. Modify the above pages to set the background colour and also change the default text attributes.





Internet and Web Page Designing

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### SESSION OBJECTIVES

*At the end of this session, the student will be able to –*

- Insert a horizontal line
- Use images
- Use Multi-level bulleting
- Use a Marquee
- Create links to other documents
- Create links to other sections in the same document
- Create links to FTP sites
- Create links to mail

The steps given in the session are detailed, comprehensive and carefully thought through. This has been done so that the learning objectives are met and the understanding of the tool is complete. Please follow these steps carefully.

#### **The First 1 Hour :**

##### **2.1 Inserting a Line**

---

##### **2.1.1 Opening a File**

1. Invoke Microsoft FrontPage Express.
2. Close the open blank file.



3. Click on the menu option 'File'.
4. Click on the menu option 'Open...'.  
This displays the dialog 'Open File...'.
5. Ensure that the option 'From File' is selected.  
Refer Figure 1.

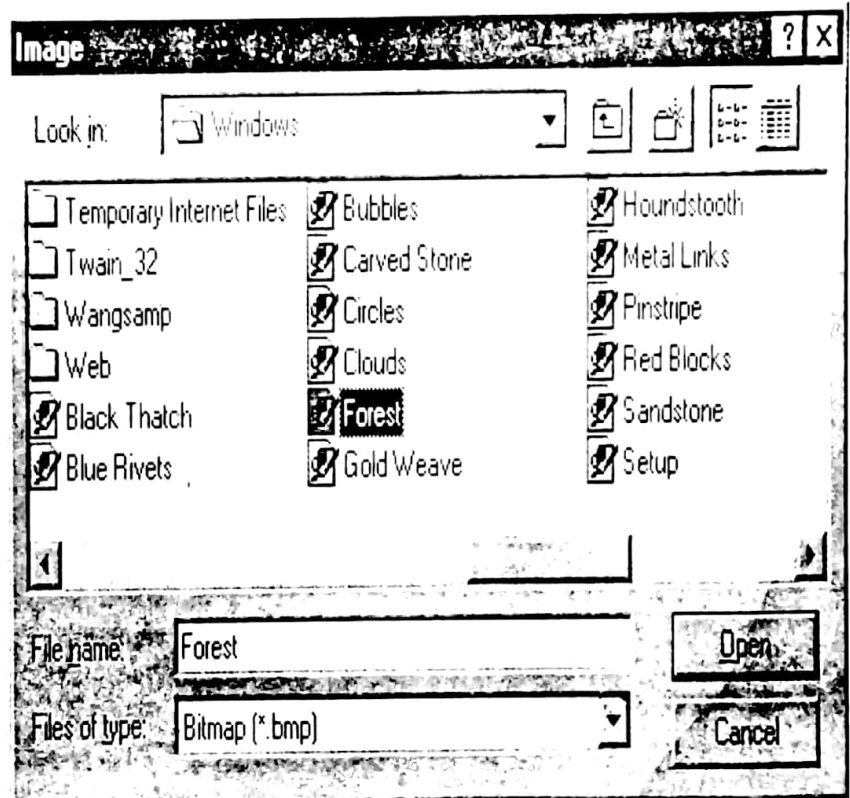


Figure 1

6. Type in 'c:\aptech\text\_attr.htm'.
7. Click on the 'OK' button.  
This opens the file 'c:\aptech\text\_attr.htm' for display. Refer Figure 2.

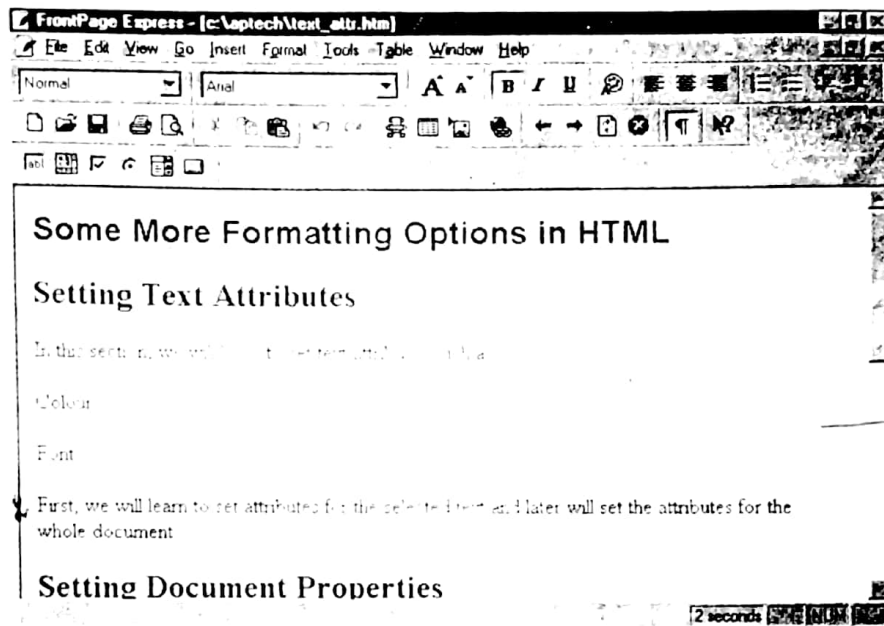


Figure 2

8. Scroll to the end of the page.
9. Press <Enter>.
10. Click on the menu option 'Insert'.  
Refer Figure 3.

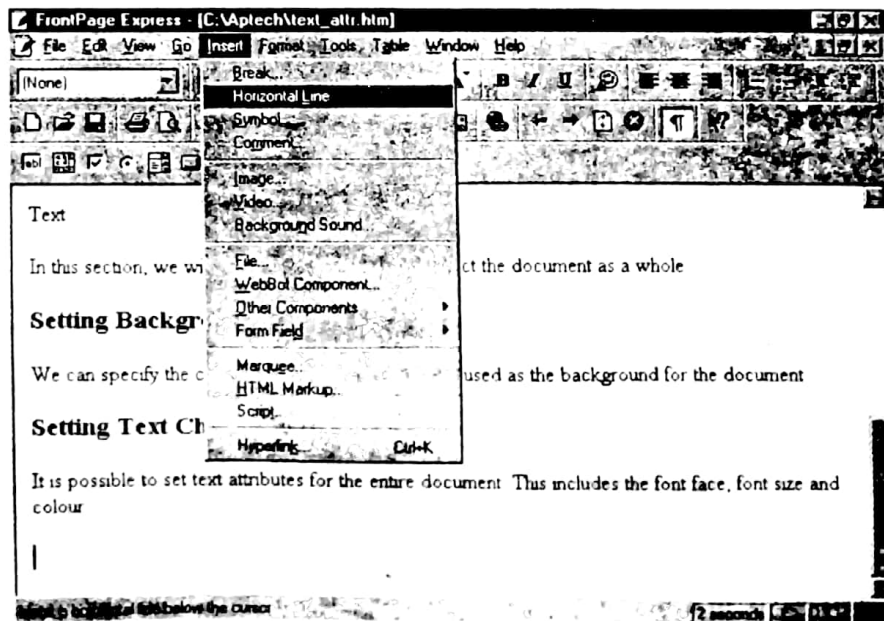
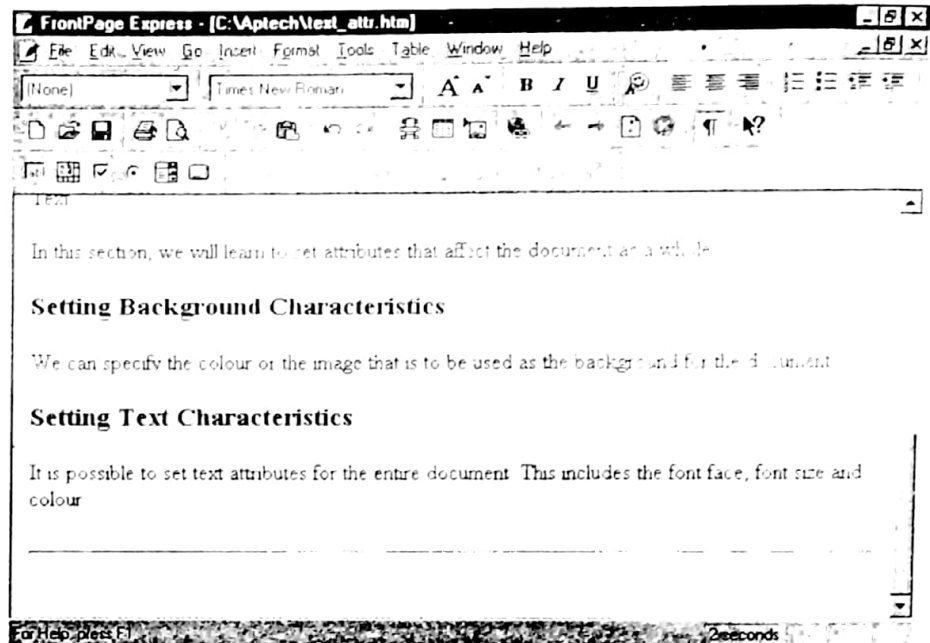


Figure 3



**11. Click on the option 'Horizontal Line'.**

This inserts a horizontal line in the file. Refer Figure 4.



**Figure 4**

**2.1.2 Line Characteristics**

1. **Click on the line with the right mouse button.**  
This displays a menu. Refer Figure 5.
2. **Select the option 'Horizontal Line Properties ...'**  
This displays the dialog 'Horizontal Line Properties'.
3. **Increase the 'Height' to '3'.**
4. **Set 'Color' to 'Blue'.**
5. **Select the check box 'Solid line (no shading)'.**  
Refer Figure 6.

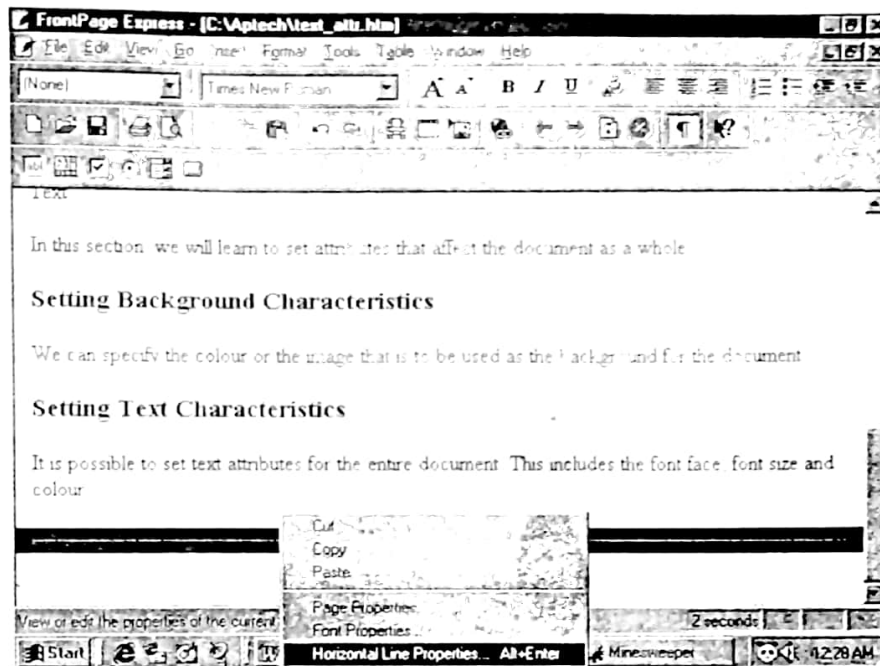


Figure 5

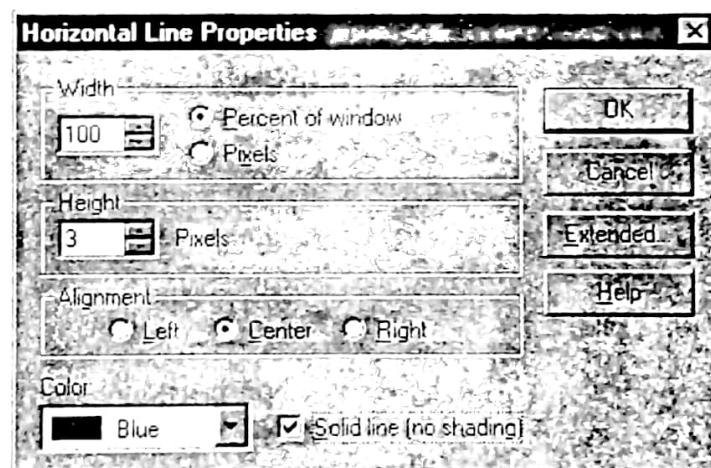


Figure 6

6. Click on the button 'OK' in the dialog "Horizontal Line Properties".

The line is displayed according to the selected options. Refer Figure 7.

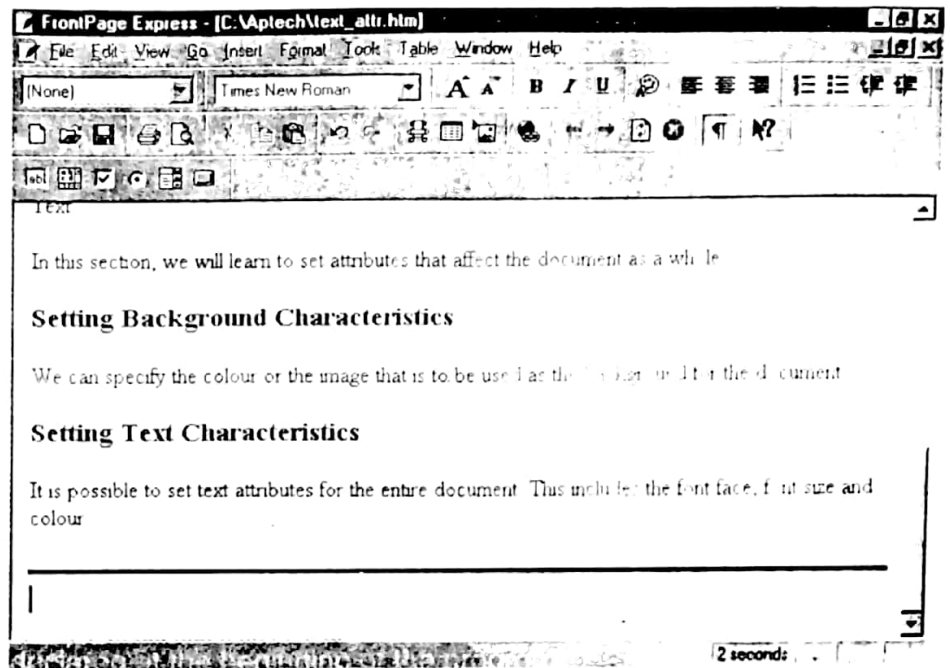


Figure 7

## 2.2 An Explanation

1. View the HTML code.
2. Consider the line:

```
<hr size="3" noshade color="#0000FF"> Blue
```

### 2.2.1 The Tag <HR>

The tag <HR> when placed in an HTML file will draw a horizontal line. The attribute NOSHADE indicates that we want a solid line while COLOR specifies the colour of the line.

The attribute SIZE is used to specify the width of the line.

~ (<HR> has no closing tag.)

3. Click on the button 'OK' of the dialog 'View or Edit HTML'.

### 2.3 Inserting an Image

1. Scroll to the end of the page.
2. Select the menu option 'Insert'.  
Refer Figure 8.
3. Select the sub option 'Image...'  
This displays the dialog 'Image'.
4. Select the radio button 'From File'.
5. Type 'c:\' in the text box.  
Refer Figure 9.

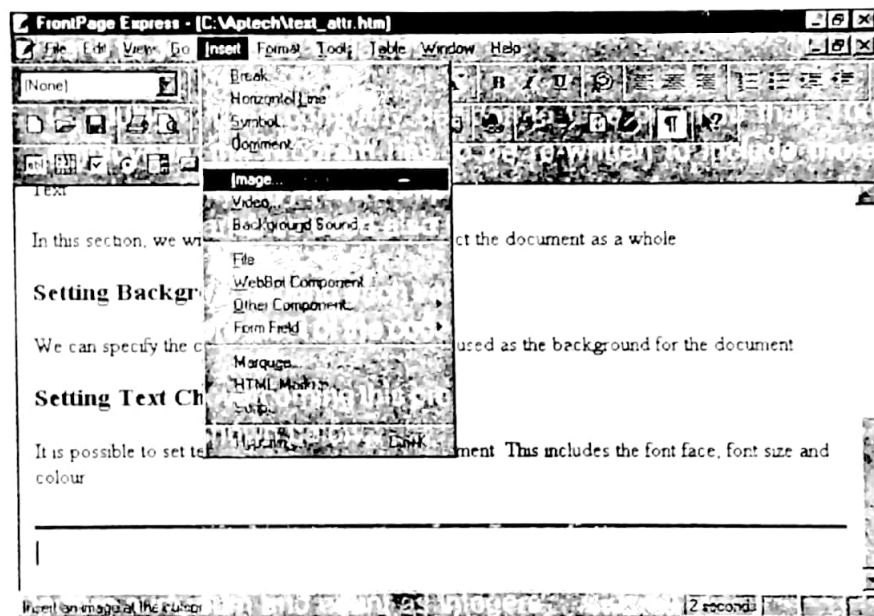


Figure 8



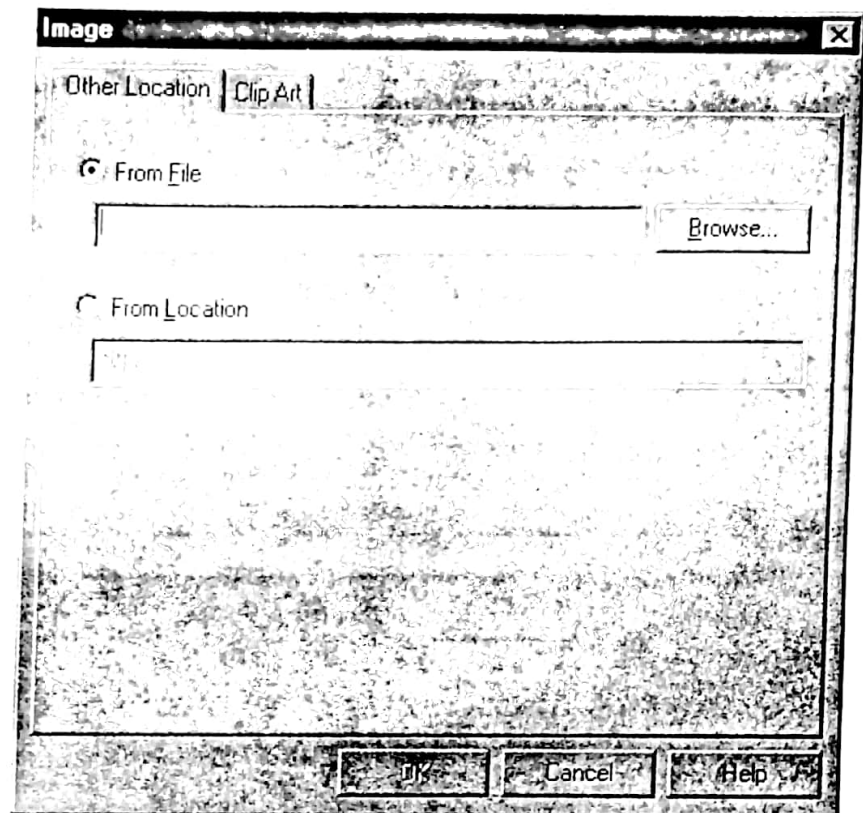


Figure 9

6. Click on the button 'Browse...'
7. Select 'Bitmap (\*.bmp)' from the list box 'Files of type'.
8. Select the folder 'Windows'.
9. Click on the button 'Open'.
10. Select the file 'Forest'.  
Refer Figure 10.

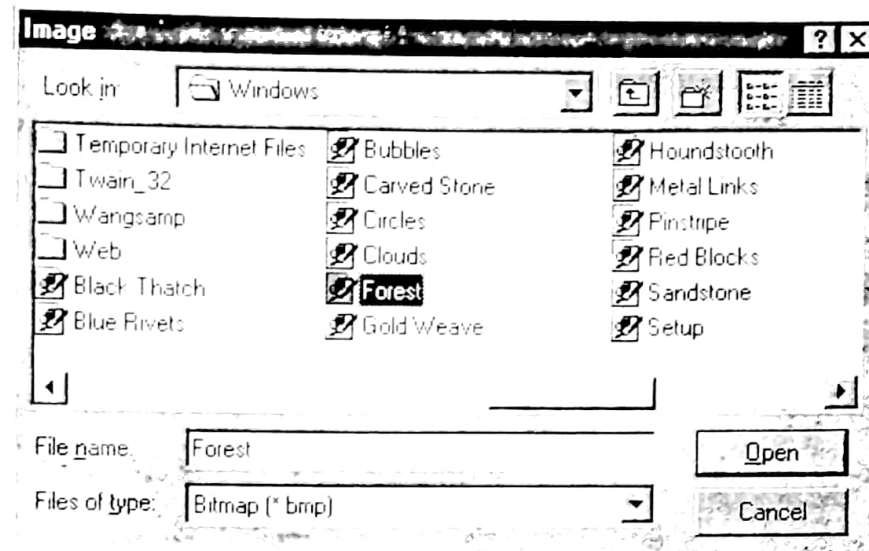


Figure 10

11. Click on the button 'Open'.

This inserts the select image in the page. Refer Figure 11.

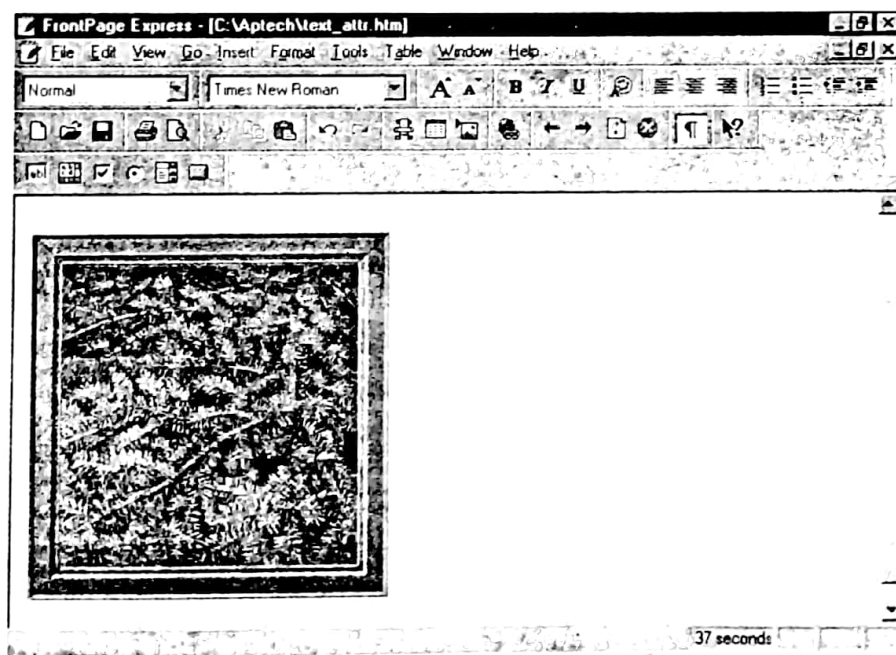


Figure 11

## 2.4 An Explanation

1. View the HTML code.
2. Consider the line :



```
<p></p>
```

### 2.4.1 The Tag <IMAGE>

The tag <IMG> is used to place an image in the HTML file. The attribute SRC specifies the name of the image file to be used. The attributes WIDTH and HEIGHT together decide the display size of the image.

<IMG> has no closing tag.

3. Click on the button 'OK' of the dialog 'View or Edit HTML'.

### 2.4.2 Saving the Image

1. Save the file.

The screen will display the dialog 'Save Image to File'. Refer Figure 12.

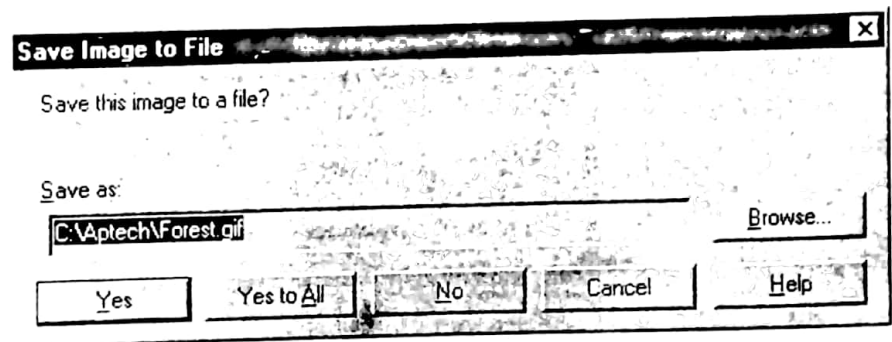


Figure 12

2. Click on the button 'Yes'.

This saves a copy of the image to the current folder.

Whenever the location of the image file is not specified the image is assumed to be in the same directory as the HTML file. Thus, when we insert an image not in the current directory, FrontPage Express creates a copy of the image in our directory.

### 2.4.3 Closing the file

1. Click on the menu option 'File'.
2. Click on the sub menu option 'Close'.



## 2.5 Customising HTML

### 2.5.1 Multi-Level Bulleting

Consider the list shown below :

1. Formatting
  - Font
  - Bullets and Numbering
  - Borders
2. Editing
  - Search and Replace
  - Cut, Copy and Paste
3. Tools
  - Spelling and Grammar Check
  - Mail Merge
  - Macros

To achieve the above multi-level bulleted look in an HTML page, follow these steps.

1. **Create a new page.**
2. **Type the following list in the page.**

Some of the features offered by Microsoft Word are :

Formatting

Font

Bullets and Numbering

Borders

Editing

Search and Replace

Cut, Copy and Paste

Tools

Spelling\*and Grammar Check

Mail Merge

Macros.

3. Select the list from '*Formatting*' to '*Macros*'.
4. Click on the menu option '*Format*'.
5. Click on the sub option '*Bullets and Numbering...*'.  
This displays the dialog '*Bullets and Numbering...*'.
6. Select the tab '*Numbered*'.
7. Select the second option in the first row.  
Refer Figure 13.

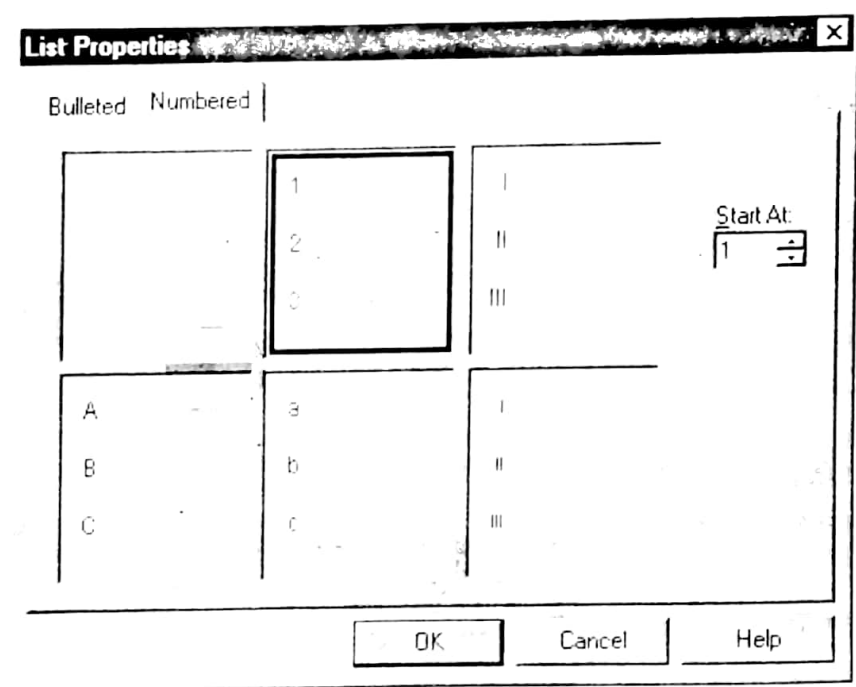


Figure 13

8. Click on '*OK*'.  
This displays the list with the numbers. Refer Figure 14.

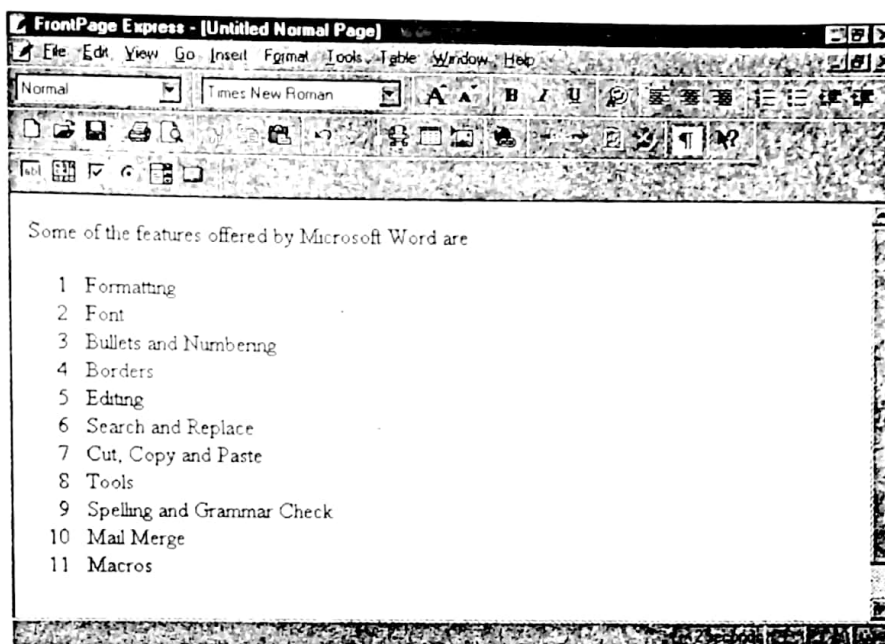


Figure 14

### ✓ 2.5.2 Editing the HTML code

To achieve the multi-level bulleting of the list, we need to write some HTML code ourselves.

1. View the HTML code.
2. Edit the HTML code as shown below :

```
<p>Some of the features offered by Microsoft Word are:</p>
<ol type="1" start="1">
<li>Formatting
<ul type="disc">
    <li>Font</li>
    <li>Bullets and Numbering</li>
    <li>Borders</li>
</ul>
</li>
<li>Editing
    <ul type="disc">
        <li>Search and Replace</li>
        <li>Cut, Copy and Paste</li>
    </ul>
</li>
</ol>
```



```

</ul>
</li>

<li>Tools
  <ul type="disc">
    <li>Spelling and Grammar Check</li>
    <li>Mail Merge</li>
    <li>Macros</li>
  </ul>
</li>
</ol>

```

3. Click on the 'OK' button.  
Refer Figure 15.

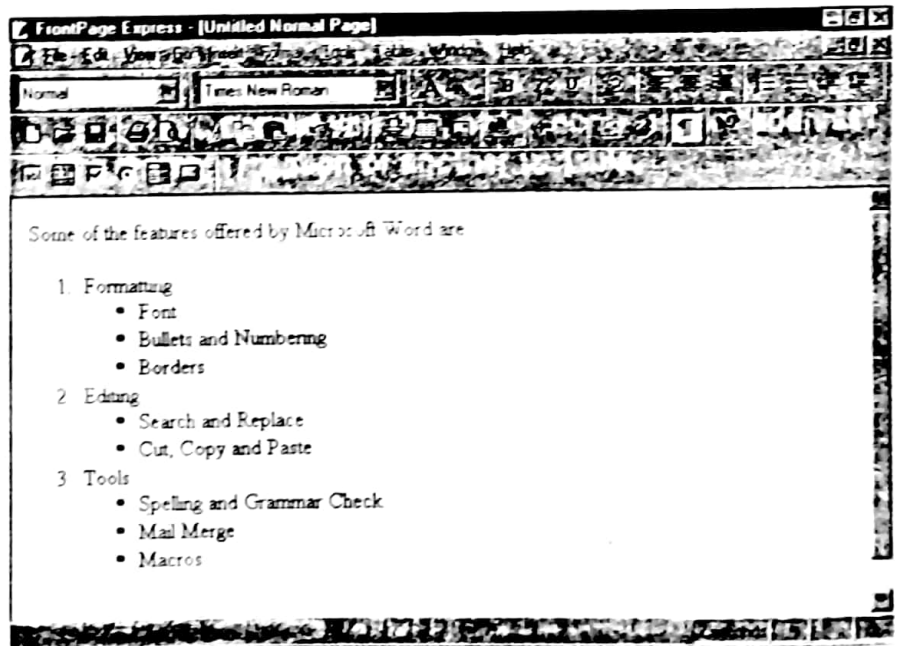


Figure 15

4. Save the file as 'c:\aptech\bullets.htm' with the title 'Multilevel Bulleting'.

## 2.6 Marquee

Marquee is a feature that enables us to display animated text on the page.



1. Press **<Ctrl+Home>**.  
This takes you to the top of the page.
2. Press **<Enter>**.
3. Press **<↑>** to move one line up.
4. Click on the menu option 'Insert'.  
Refer Figure 16.

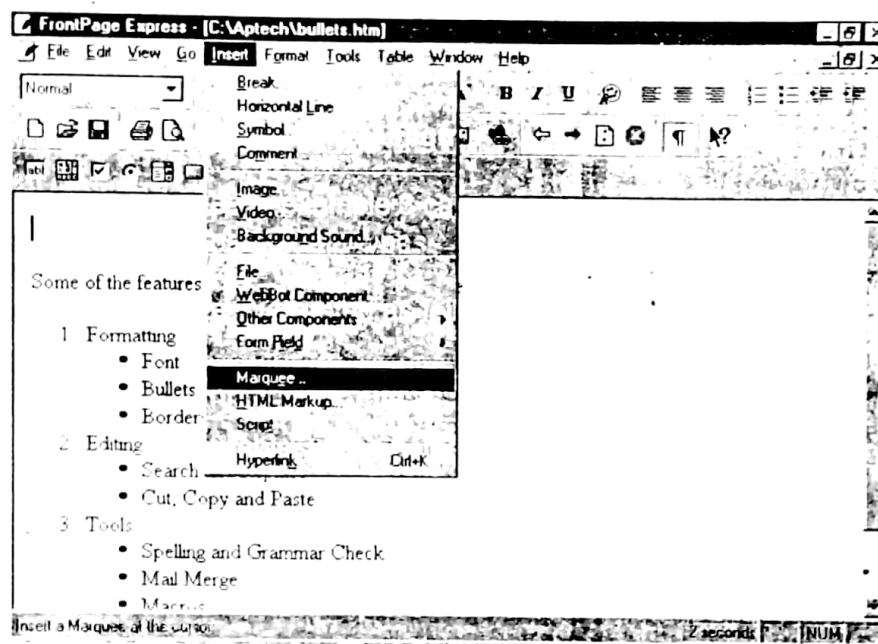


Figure 16

5. Click on the sub option 'Marquee...'.  
This displays the dialog 'Marquee Properties'.
6. Type '**Microsoft Word**' in 'Text'.  
Refer Figure 17.
7. Ensure that 'Left' is the selected 'Direction'.
8. Retain default values of the section 'Movement Speed'.
9. Ensure that 'Scroll' is the selected 'Behavior'.
10. Select 'Middle' as the 'Align with Text'.
11. Ensure the option 'Continuously' is selected in the section 'Repeat'.





12. Select 'Blue' as the 'Background Color'.  
Refer Figure 17.

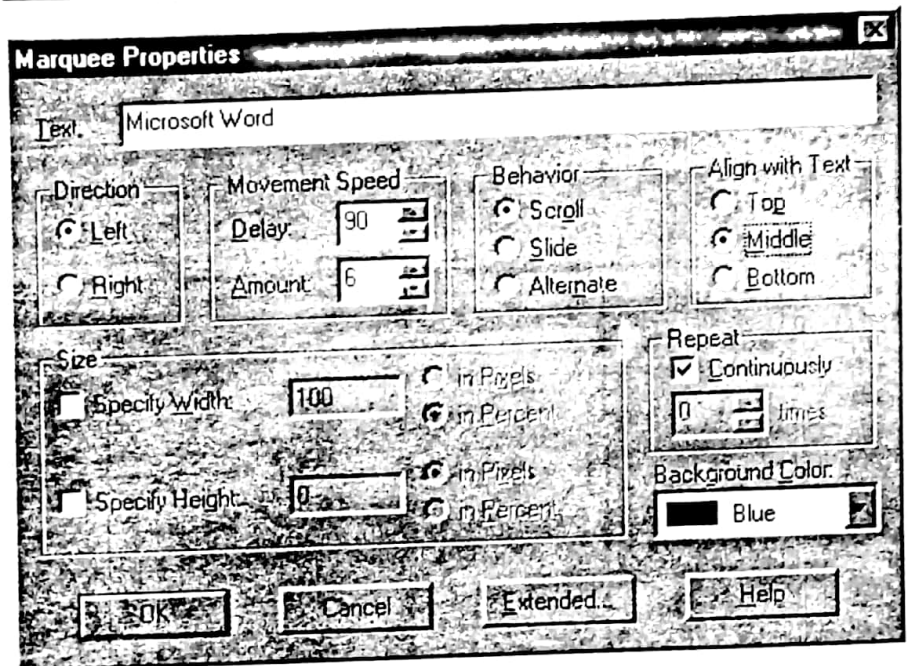


Figure 17

13. Click on the 'OK' button.  
This displays the marquee in the page. Refer Figure 18.

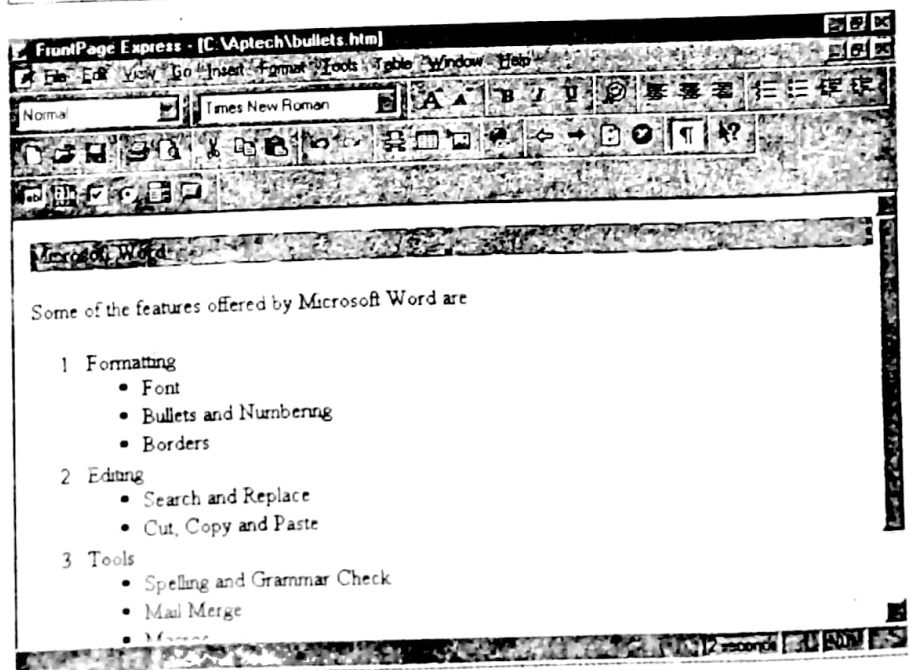


Figure 18



14. Save the file.
15. Close the file.
16. Exit from FrontPage Express.

### 2.6.1 Testing the Marquee

1. Click on 'Start' on the taskbar.
2. Click on 'Programs'.
3. Click on 'Internet Explorer'.
4. Click on 'Internet Explorer'.  
This starts Microsoft Internet Explorer.
5. Click on the menu option 'File'.
6. Click on the sub option 'Open...'.
7. Specify '*c:\aptech\bullets.htm*'.
8. Press <Enter>.  
This opens the file '*c:\aptech\bullets.htm*' and displays the scrolling text in the marquee. Refer Figure 19.

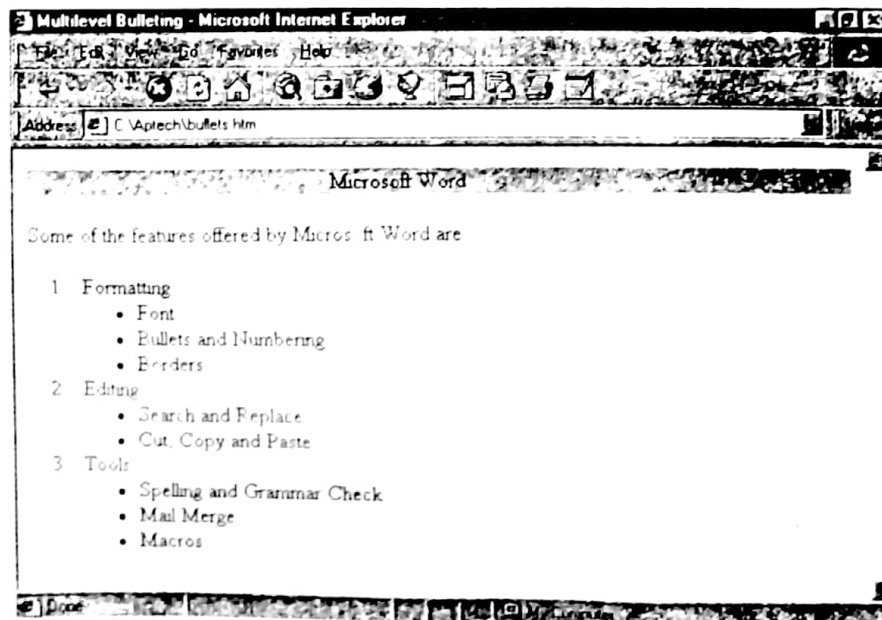


Figure 19



## 2.7 Links

### 2.7.1 Sample Files

1. Click on the menu option 'File'.
2. Click on the sub menu option 'New...'.  
This opens the dialog 'New Page'. Refer Figure 20.
3. Select the option 'Normal Page'.
4. Click on the 'OK' button.  
This creates a new blank page.

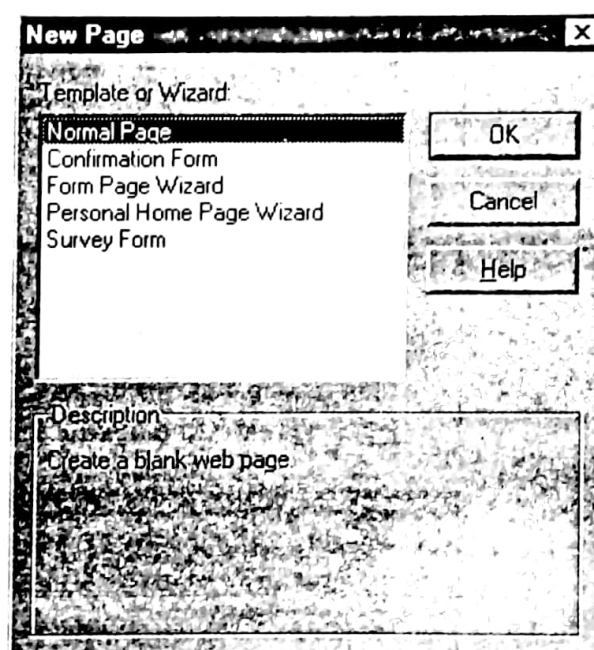


Figure 20

5. Type the following text in the file :

Microsoft Office Suite consists of the following products :

Word

Excel

PowerPoint

Access



6. Save the file as '*main.htm*' in the folder '*c:\laptech*' with title set to '*Microsoft Office*'
7. Close the file.
8. Create a new file.
9. Type the following text in the file :

Microsoft Word is a word processor that offers a range of features that enable us to edit and format text.

10. Save the file as '*word.htm*' in the folder '*c:\laptech*' with title set to '*Word*'.
11. Close the file.

#### 2.7.2 Establishing Links

1. Open the file '*c:\laptech\main.htm*'.
2. Select the text '*Word*'.
3. Click on the menu option '*Insert*'.  
Refer Figure 21.
4. Click on the sub option '*Hyperlink...*'.  
This displays the dialog 'Create Hyperlink'.
5. Type '*word.htm*' in the text box '*URL*'.  
Refer Figure 22.

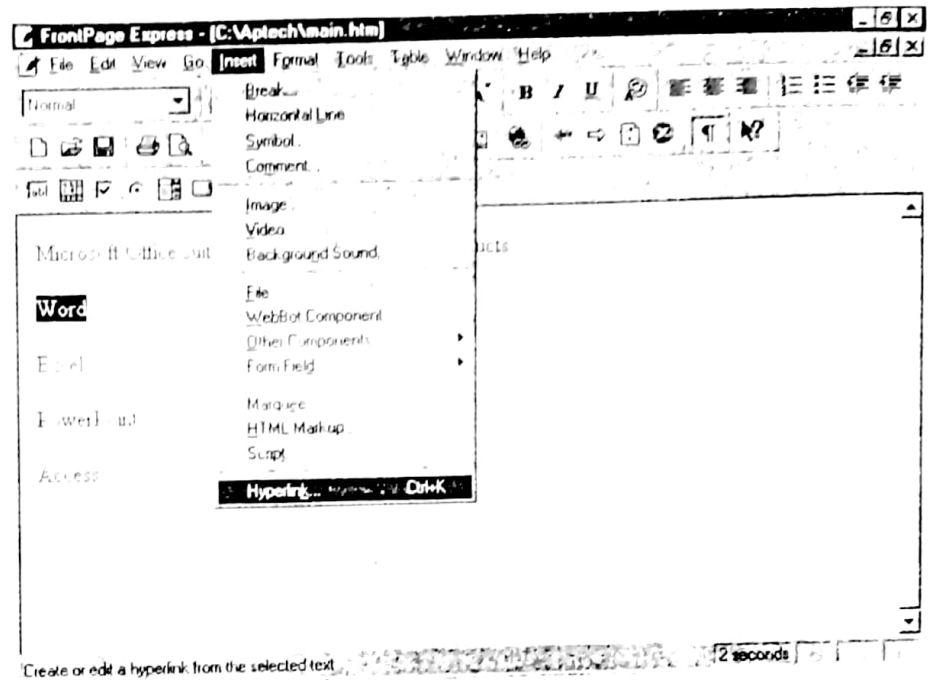


Figure 21

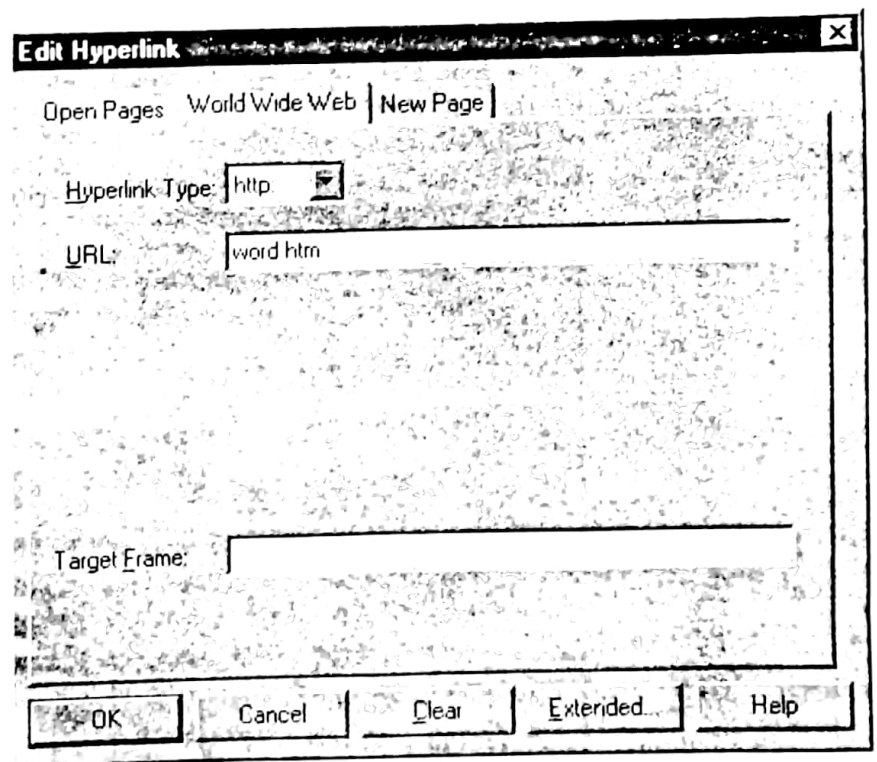


Figure 22

6. Click on the 'OK' button.  
This displays the text underlined. Refer Figure 23.

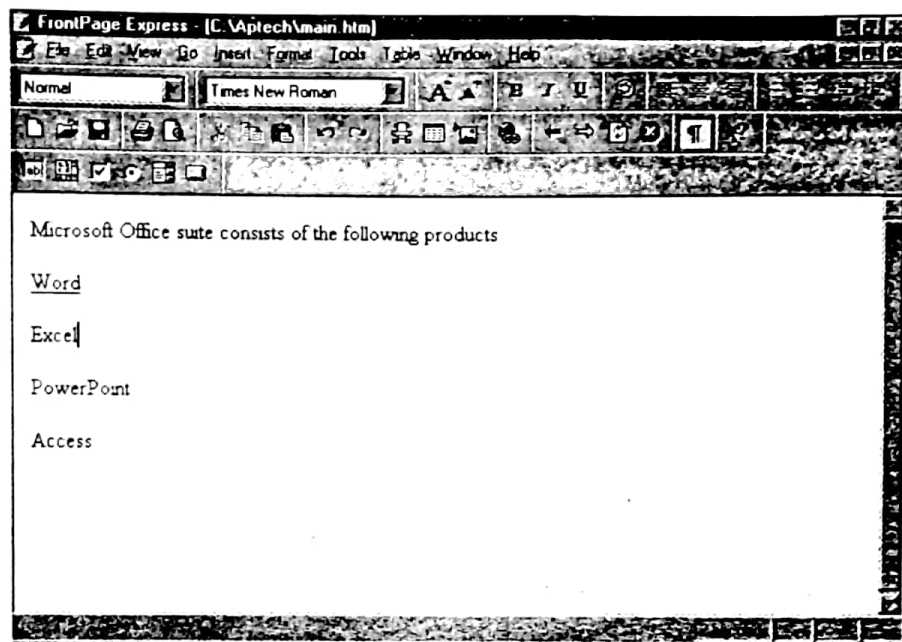


Figure 23

**7. Save the file.****2.7.3 Testing the Link**

Now that we have created the link, we will learn to test the link from with Microsoft FrontPage Express :

- 1. Click on the link with the right mouse button.**  
This displays a menu. Refer Figure 24.

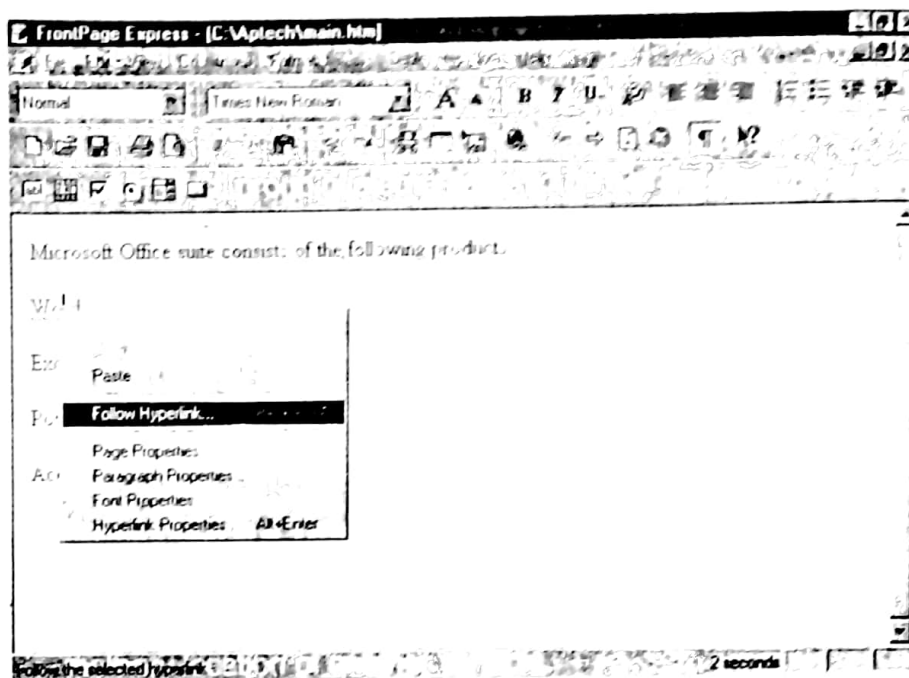


Figure 24

**2. Select the option 'Follow Hyperlink...'.**

This takes you to the page 'word.htm'. Refer Figure 25.

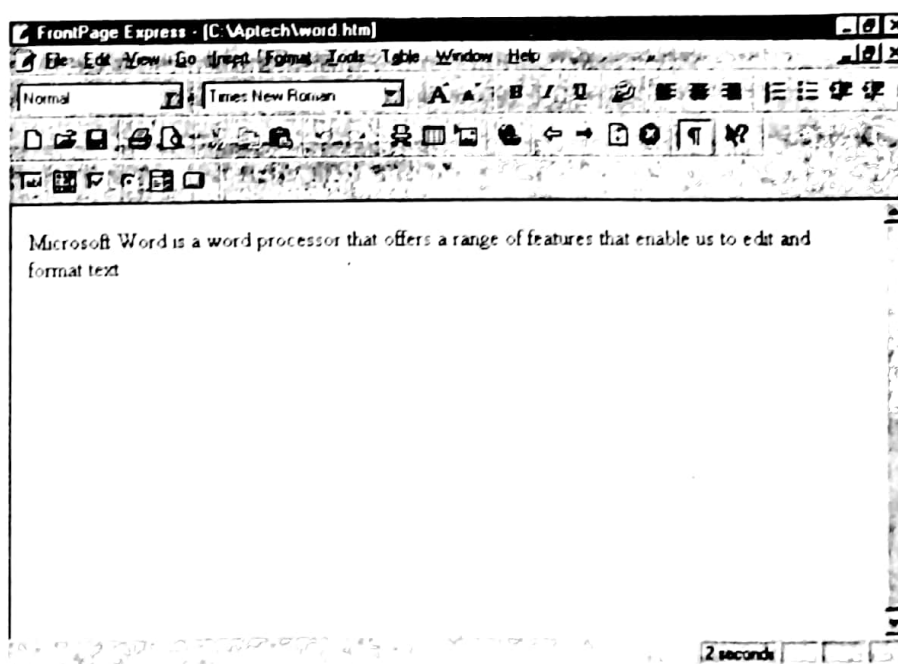


Figure 25

## 2.7.4 Using Microsoft Internet Explorer to Test

1. Close the file '*word.htm*'.
  2. Close the file '*main.htm*'.
  3. Start Internet Explorer.
  4. Open the file '*c:\main.htm*'.
- Refer Figure 26.

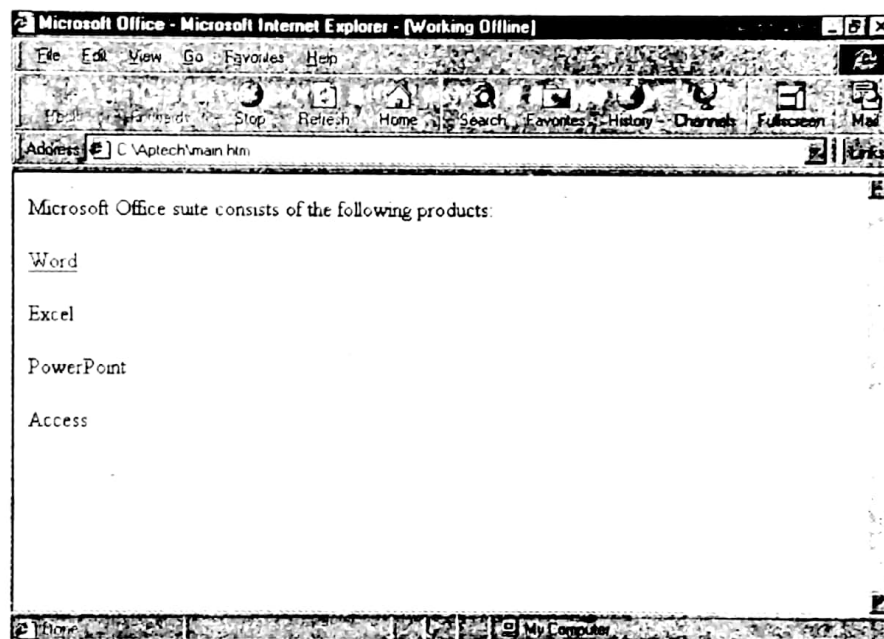


Figure 26

5. Click on the text '*Word*'.
- This takes us to the page '*word.htm*'. Refer Figure 27.



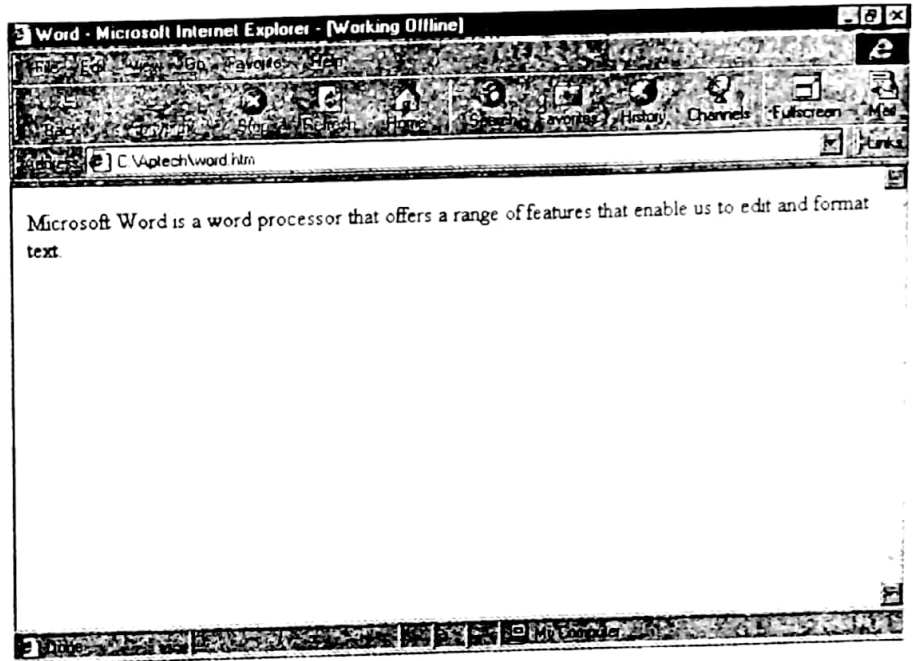


Figure 27

6. Close Internet Explorer.

## 2.8 An Explanation

7. Switch back to Microsoft FrontPage Express.

8. Open the file 'c:\aptech\main.htm'.

9. View the HTML code.

10. Consider the line :

```
<p><a href="word.htm">Word</a></p>
```

### 2.8.1 The Tags <A>... </A>

The attribute HREF of the tags <A>...</A> is used to specify the link. The link may be to :

- ➡ File
- ➡ WWW site
- ➡ Gopher address
- ➡ FTP site
- ➡ WAIS location
- ➡ Mail Address



In our case, it is to another file in the same directory.

11. Click on the button 'OK' of the dialog 'View or Edit HTML'.

### 2.8.2 A Link to a Mail Address

1. Scroll to the end of the file.
2. Type in the following line :

For more information contact: [info@microsoft.com](mailto:info@microsoft.com)

3. Press <Enter>. FrontPage Express recognises '[info@microsoft.com](mailto:info@microsoft.com)' as an email ID and creates a link.
4. Select '[info@microsoft.com](mailto:info@microsoft.com)'.
5. Click on the menu option 'Insert'.
6. Click on the sub option 'Hyperlink...'. This displays the dialog 'Create Hyperlink' with 'Hyperlink Type' is set to 'mailto' indicating that the text is linked to a mail address and the 'URL' is set to '<mailto:info@microsoft.com>'. Refer Figure 28.
7. Click on the 'OK' button.

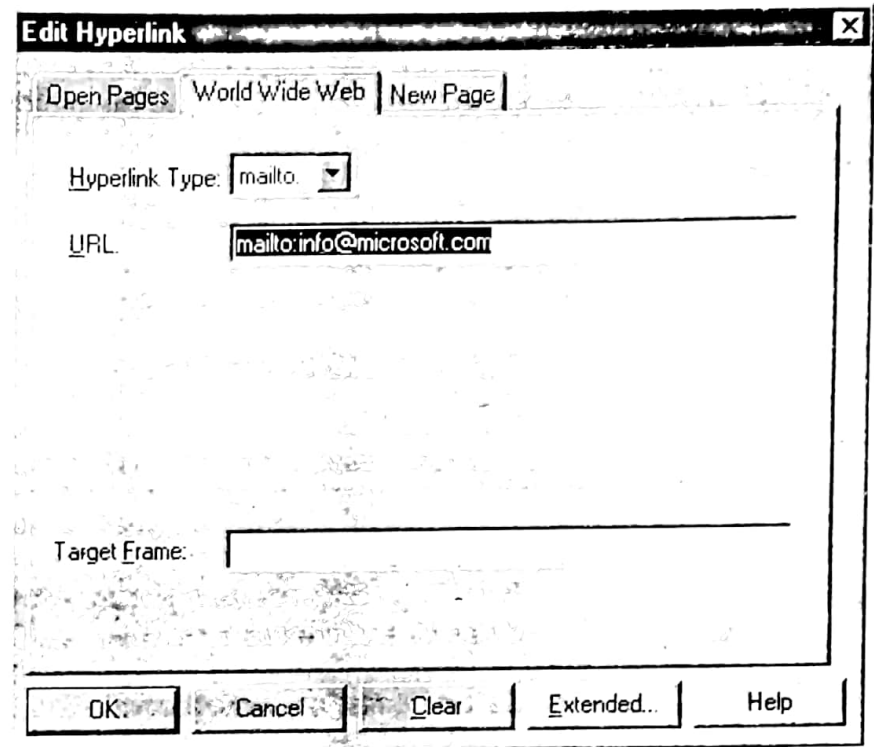


Figure 28

## 2.9 An Explanation

1. **View HTML code.**
2. **Consider the line :**

```
<p>For more information contact: <a href="mailto: info@microsoft.com"> info@microsoft.com</a></p>
```

All links to mail addresses are preceded by a 'mailto:'.

3. **Click on the button 'OK' of the dialog 'View or Edit HTML'.**

### 2.9.1 Testing the Link to Mail Address

1. **Close the file 'main.htm'.**
2. **Start Microsoft Internet Explorer.**
3. **Open the file 'c:\aptech\main.htm'.**  
Refer Figure 29.

*<a href="mailto:aptech@super.net.pk">aptech@super.net.pk</a>*



**4. Click on the text '[info@microsoft.com](mailto:info@microsoft.com)'.**

This starts Microsoft Outlook Express and opens a 'New Message' window with '[info@microsoft.com](mailto:info@microsoft.com)' as the email ID. Refer Figure 30.

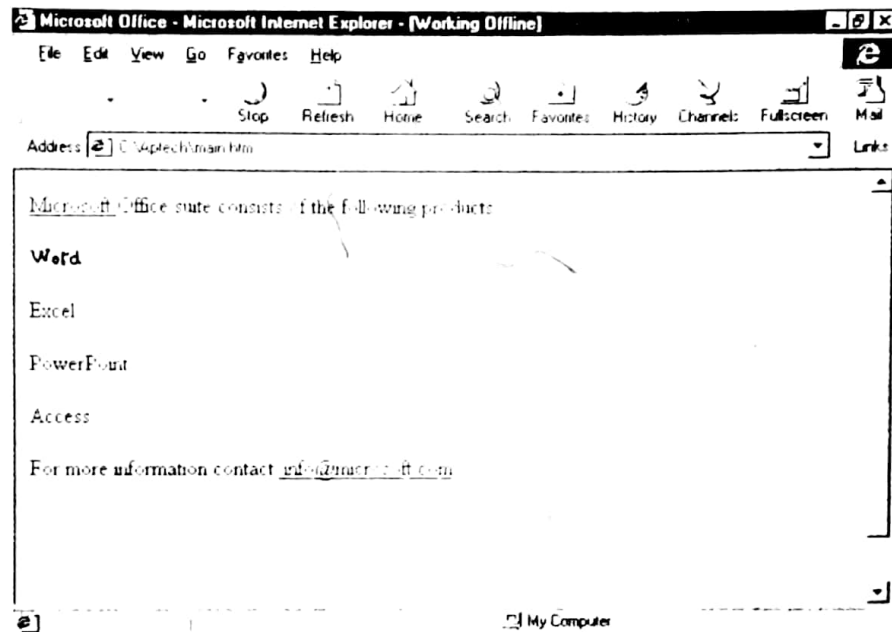


Figure 29

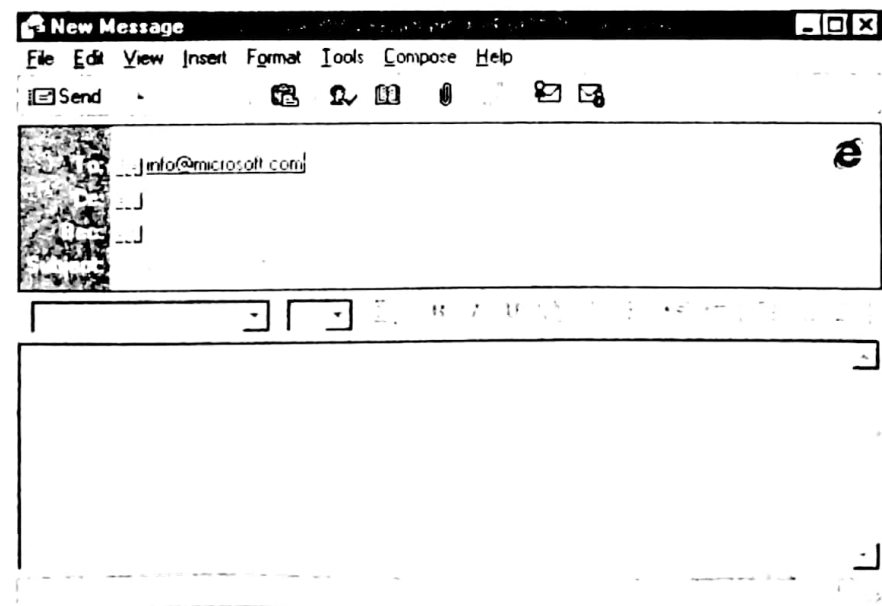


Figure 30



5. Close the 'New Message' window.
6. Close Microsoft Internet Explorer.
7. Return to Microsoft FrontPage Express.
8. Close all files.

#### 2.10 Links to Sections of the Same File

1. Create a new file.
2. Type the following text :

##### Features of Microsoft Word

Word offers us many features such as :

Formatting

Editing

Tables

Formatting

Among the formatting features that Word offers are :

Font

Bullets and Numbering

Borders and Shading

Paragraph

Drop Cap

Change Case

Editing

The editing features in Word include :

Cut, Copy and Paste

Find and Replace

Go To

Tables

Using the Table menu option, we can :



Insert tables of required dimensions

Add/delete rows and/or columns

Merge Cells

Split cells

Format the table

3. Save the file as '*c:\aptech\Word\_features.htm*'.

4. Format the text as follows.

### Features of Microsoft Word

Word offers us many features such as :

- Formatting
- Editing
- Tables

### Formatting

Among the formatting features that Word offers are :

1. Font
2. Bullets and Numbering
3. Borders and Shading
4. Paragraph
5. Drop Cap
6. Change Case

### Editing

The editing features in Word include :

1. Cut, Copy and Paste
2. Find and Replace
3. Go To



## Tables

Using the Table menu option, we can :

1. Insert tables of required dimensions
2. Add/delete rows and/or columns
3. Merge Cells
4. Split cells
5. Format the table

5. **Select the heading 'Formatting'.**  
Refer Figure 31.

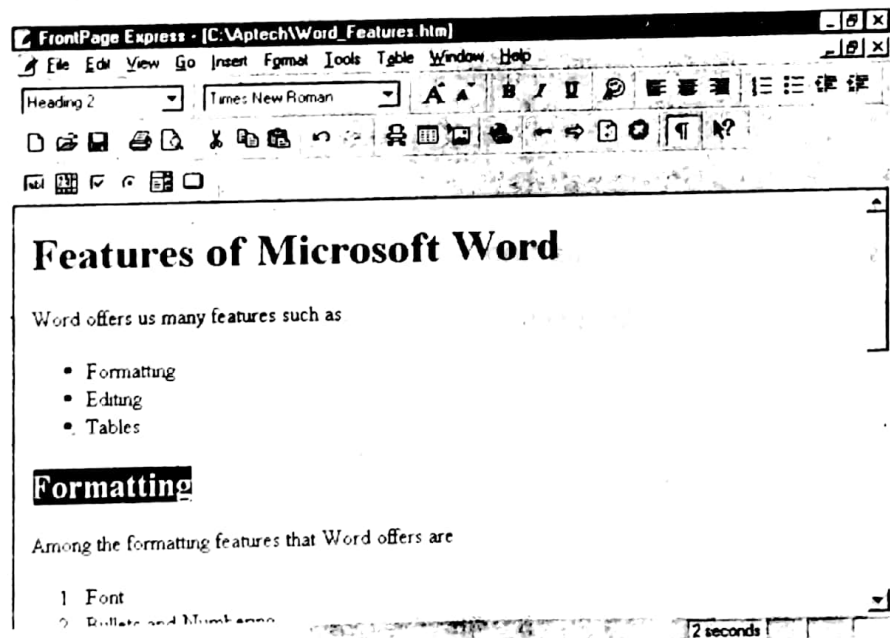


Figure 31

6. **Click on the menu option 'Edit'.**  
Refer Figure 32.
7. **Click on the sub option 'Bookmark...'**  
This opens the dialog 'Bookmark'. Refer Figure 33.

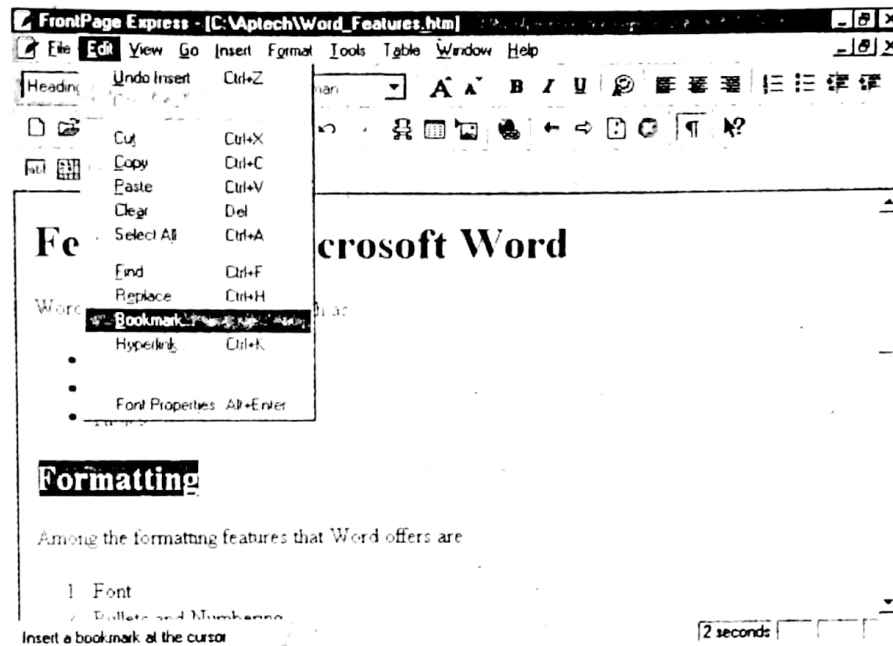


Figure 32

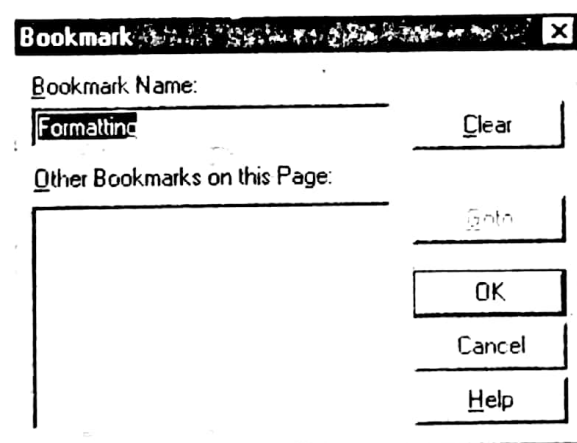


Figure 33

8. Click on 'OK'.
9. Repeat Steps 5-8 for the headings 'Editing' and 'Tables'.
10. Select the bulleted point 'Formatting'.
11. Click on the menu option 'Insert'.
12. Click on the sub option 'Hyperlink...'.  
This displays the dialog 'Create Hyperlink'.



13. Select the tab 'Open Pages'.
14. Select '*Features of Microsoft Word*' from the list box 'Open Pages:'
15. Select '*Formatting*' from the list box 'Bookmark:'  
Refer Figure 34.

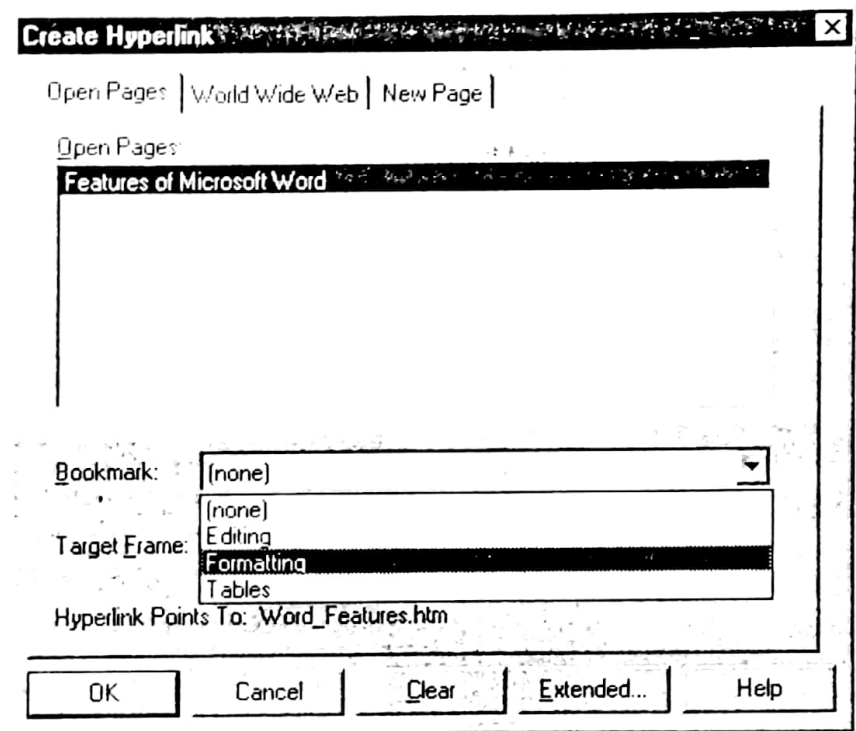


Figure 34

16. Click on 'OK'.
17. Repeat Steps 10-16 for the headings '*Editing*' and '*Tables*' using the corresponding bookmarks.
18. Save the Page.
19. Close the Page.

### 2.10.1 Testing the Link

1. Start Microsoft Internet Explorer.
2. Open the page '*c:\laptech\Word\_Features.doc*'.  
Refer Figure 35.

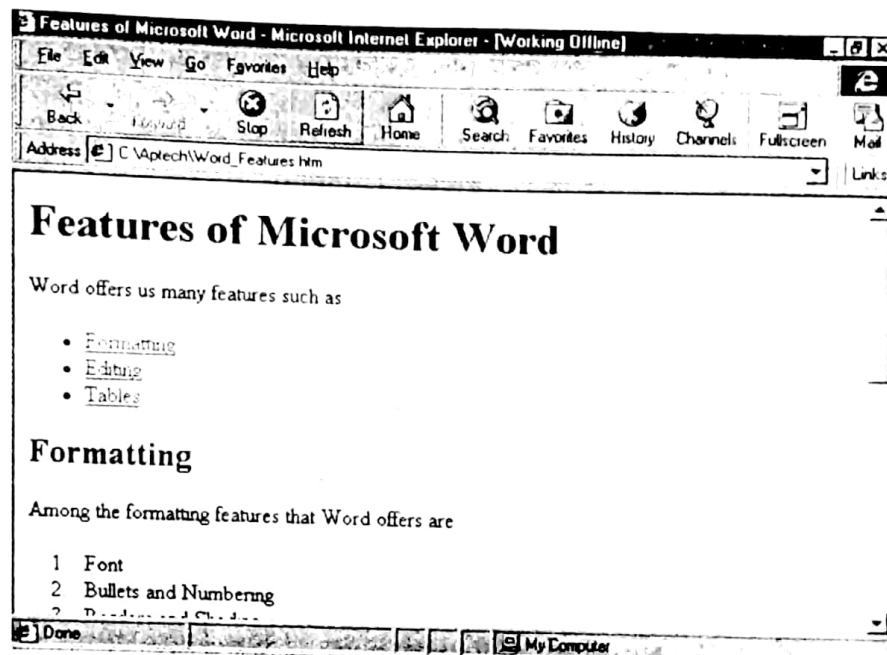


Figure 35

3. Click on the bulleted text '*Editing*'.  
The page will scroll to the heading '*Editing*'. Refer Figure 36.

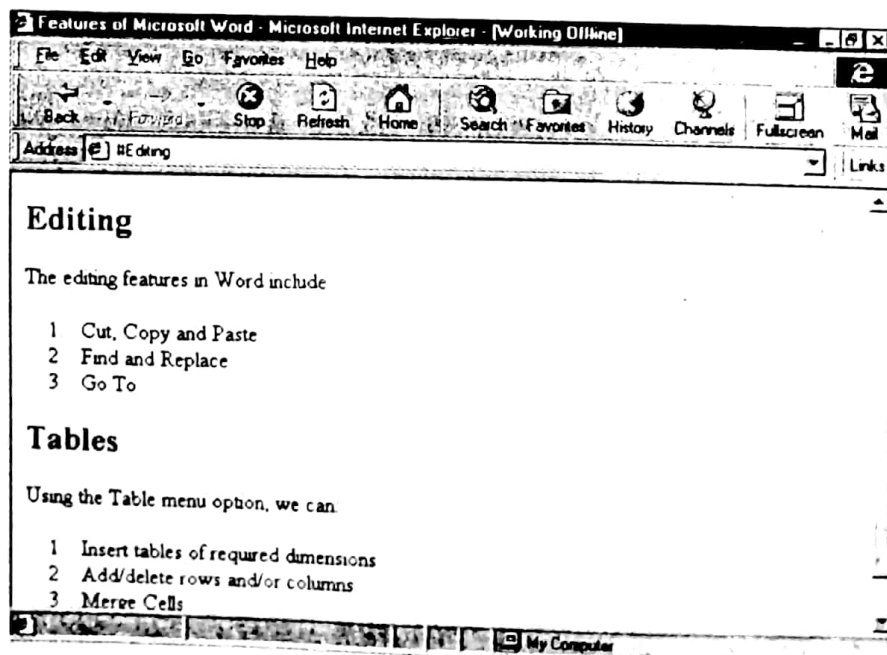


Figure 36

4. Exit Microsoft Internet Explorer.
5. Return to Microsoft FrontPage Express.

## 2.11 An Explanation

1. Open the file 'c:\laptech\Word\_Features.doc'.
2. View the HTML code.
3. Consider the line :

```
<h2><a name="Formatting">Formatting</a></h2>
```

### 2.11.1 More on the Tags <A>...</A>

The attribute NAME of the Tags <A>...</A> allows us to name particular pieces of text. This name can be used to reference the text.

4. Consider the line :

```
<li><a href="#Formatting">Formatting</a></li>
```

Whenever the link is to a location within the HTML file, we use the bookmark or the name to mark the locations in the file and then link to those locations. All bookmarks have to be preceded by the '#'.

To link to a bookmark in another file, use the notation :

```
<a href = "FileName#Bookmark">Text to be linked</a>
```

### The Next 1 Hour :

1. A file named **sample.htm** is provided in your work directory. It has formatted text and an image. Design a new page such that it has the contents of **sample.htm**. Format the contents and provide the image so that the page you have created is identical to **sample.htm**. The required image file has been provided to you.
2. Open the files **excel.htm** and **powerpoint.htm** created in lab session 1 and add one paragraph in both the files explaining the application of both the softwares.



3. Create HTML file **access.htm** containing some details about Microsoft Access.
4. Link all these files to **main.htm** created earlier in the session.
- 5. Insert a bookmark in the file **excel.htm**. Create a link to this bookmark from **main.htm**.

*Handwritten note:* To link to main.htm



***This page has been intentionally left blank***

### **SESSION OBJECTIVES**

*At the end of this session, the student will be able to –*

- ➡ Use the Personal Web Page Wizard
- ➡ Add comments
- ➡ Add symbols

The steps given in the session are detailed, comprehensive and carefully thought through. This has been done so that the learning objectives are met and the understanding of the tool is complete. Please follow these steps carefully.

#### **The First 1 Hour :**

##### **3.1 Using the Personal Home Page Wizard**

In this session, you will learn to use the Personal Home Page Wizard. This wizard enables you to easily create a personal home page.

The Personal Home Page Wizard gives hints as to what is to be done at every stage of creation. Please read the instructions carefully.

To create home pages using the wizard :

1. Invoke Microsoft FrontPage Express.
2. Close the blank file.
3. Click on the menu option 'File'.
4. Click on the sub option 'New...'.  
This displays the dialog 'New Page'. Refer Figure 1.

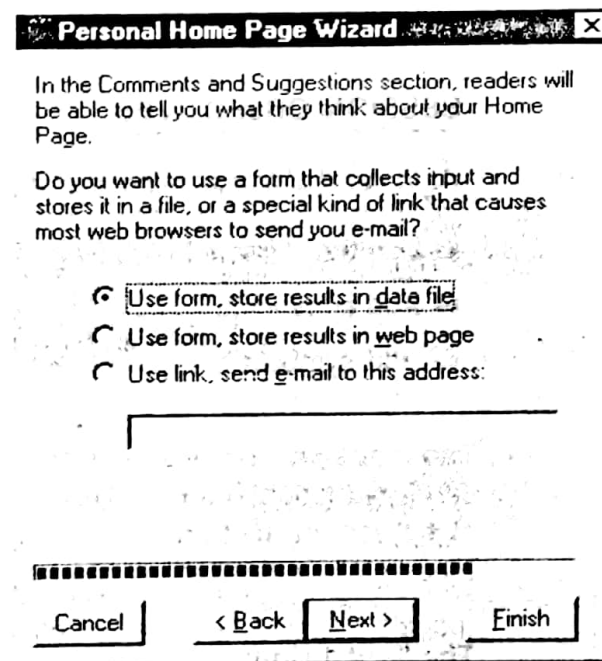


Figure 1

5. Select the option 'Personal Home Page Wizard'.
6. Click on 'OK'.  
This starts the 'Personal Home Page Wizard'. Refer Figure 2.

**Personal Home Page Wizard**

In the Comments and Suggestions section, readers will be able to tell you what they think about your Home Page.

Do you want to use a form that collects input and stores it in a file, or a special kind of link that causes most web browsers to send you e-mail?

☒ Use form, store results in data file  
☐ Use form, store results in web page  
☐ Use link, send e-mail to this address:

Figure 2

7. **Retain the default selected values.**

8. **Click on 'Next'.**

This takes you to the next step where we need to specify the Title for the page and the name for the HTML file. Refer Figure 3.



Figure 3

9. Type 'index.htm' in the text box meant for Page URL.
10. Type 'This is My Home Page' in the text box meant for Page Title.
11. Click on Next.  
The next section is the Employee Section where you can enter your job details. Refer Figure 4.

**Personal Home Page Wizard**

The Employee Information section is used to describe your job role and responsibilities to other people in your organization.

Select the information to include in this section:

- ☒ Job title
- ☒ Key responsibilities
- ☒ Department or workgroup
- ☐ Manager
- ☐ Direct reports

NOTE: the wizard will create sample links to other employee web pages where appropriate. You can change these links later using the FrontPage editor.

Cancel < Back Next > Finish

Figure 4

12. **Retain the default selected values.**
13. **Click on 'Next'.**  
The next section describes the current projects that you may be working on.
14. **Type 'Learning HTML' in the text box meant for names of current projects.**
15. **Press Enter key.**
16. **Type 'Creating Web Pages'.**
17. **Select the option 'Definition List'.**  
This allows you to specify details along with the name of the project. Refer Figure 5.

**Personal Home Page Wizard**

Enter the names of some Current Projects you're working on.

Learning HTML  
Creating Web Pages

How do you want these items presented?

☐ Bullet list  
☐ Numbered list  
☒ Definition list (item plus description)

Cancel < Back Next > Finish

3 on 2

Figure 5

**18. Click on 'Next'.**

The next section deals with the list of sites that you are interested in. Refer Figure 6.

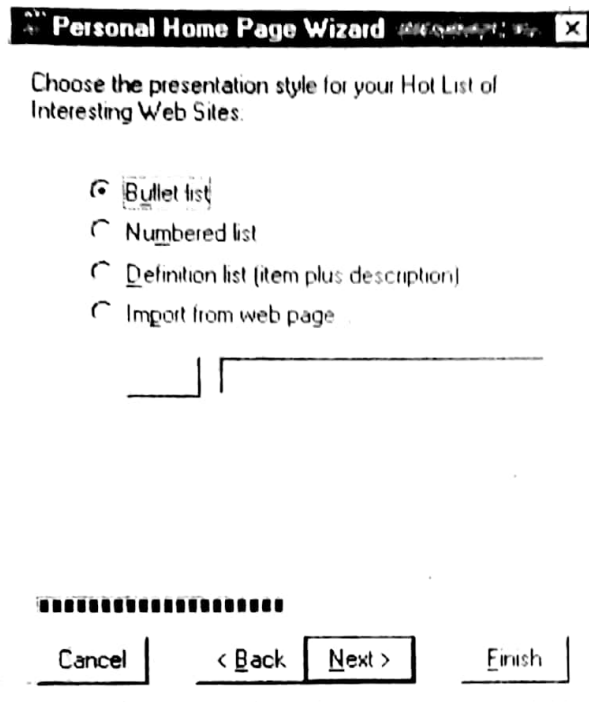


Figure 6

19. Retain the default option of 'Bullet List' as style of presentation for the Hot List of Interesting Web Sites.
20. Click on 'Next'.  
The next section for which information is to be supplied is the Biography section.

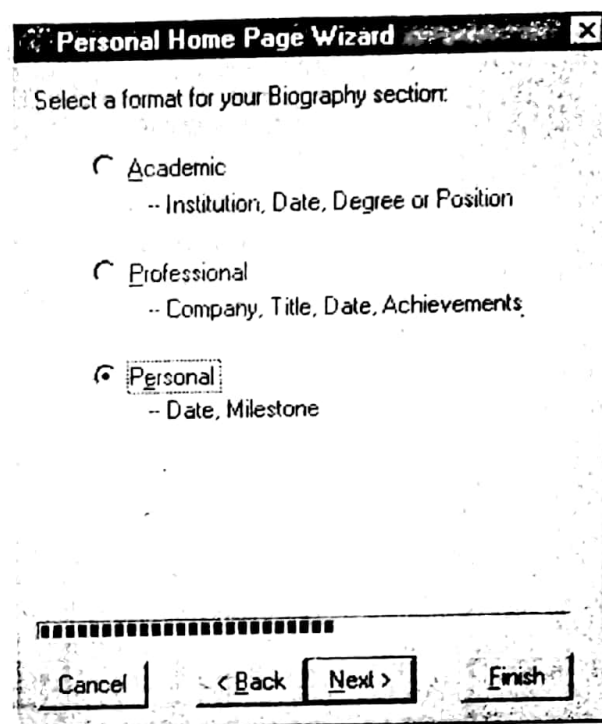


Figure 7

21. **Select the 'Personal' option.**  
Refer Figure 7.
22. **Click on 'Next' .**  
The next section allows us to enter some information on Personal Interests.
23. **Type 'Computers'.**
24. **Press <Enter> key.**
25. **Type 'Music'.**
26. **Press <Enter> key.**
27. **Type 'Sports'.**
28. **Press <Enter> key.**
29. **Select the option 'Definition List'.**  
Refer Figure 8.

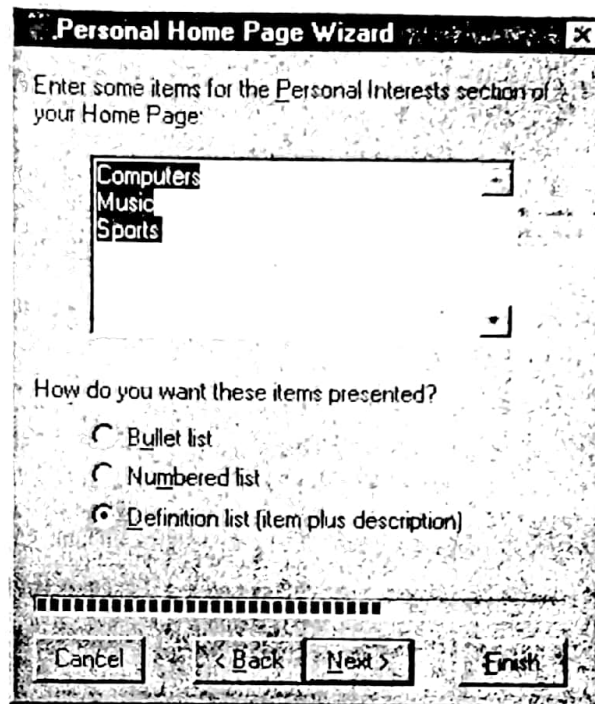


Figure 8

30. **Click on 'Next'.**  
This takes us to the section for Contact information.
31. **Set 'E-mail address' and 'URL address' as the only relevant Contact information to be displayed.**  
Refer Figure 9.

**Personal Home Page Wizard**

Choose the relevant Contact Information to place on your Home Page:

☐ Postal address

☒ E-mail address: info@aptech.com

☒ URL address: http://mycompany.com

☐ Office phone: 212-555-1212

☐ FAX number

☐ Home phone

Cancel < Back Next > Finish

7th one

Figure 9

32. **Click on 'Next'.**  
This takes us to the section for Comments and Suggestions.

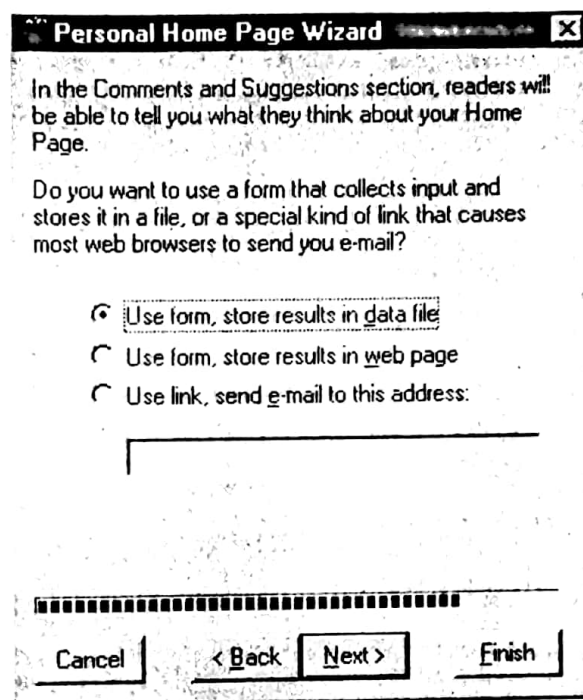


Figure 10

**33. Retain the default option of 'Use form, store results in data file'.**

This option will create a form at the bottom of the home page with text boxes and buttons. The visitors to your page will use this form to fill in comments and suggestions.

**34. Click on 'Next'.**

This will take you to the next step of the Personal Home Page Wizard. Refer Figure 11.



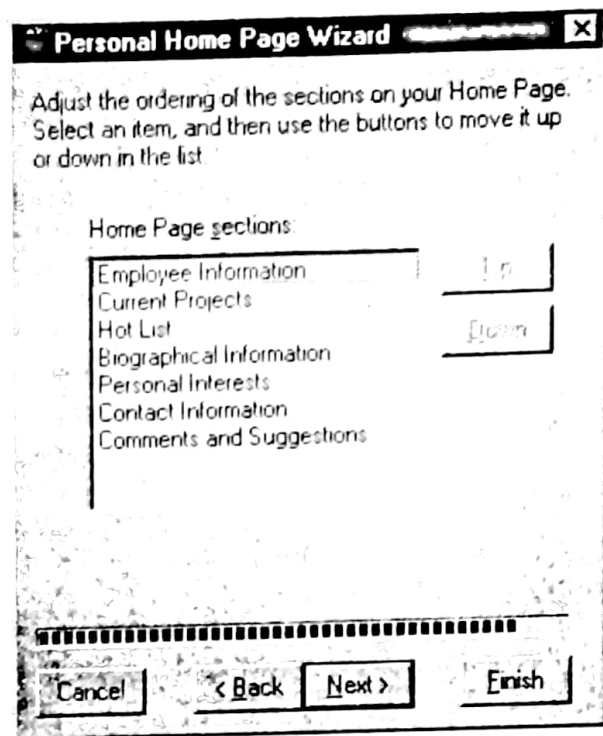


Figure 11

35. **Retain the default order for sections.**
36. **Click on 'Next'.**  
This will take you to the last step of the Personal Home Page Wizard. Refer Figure 12.

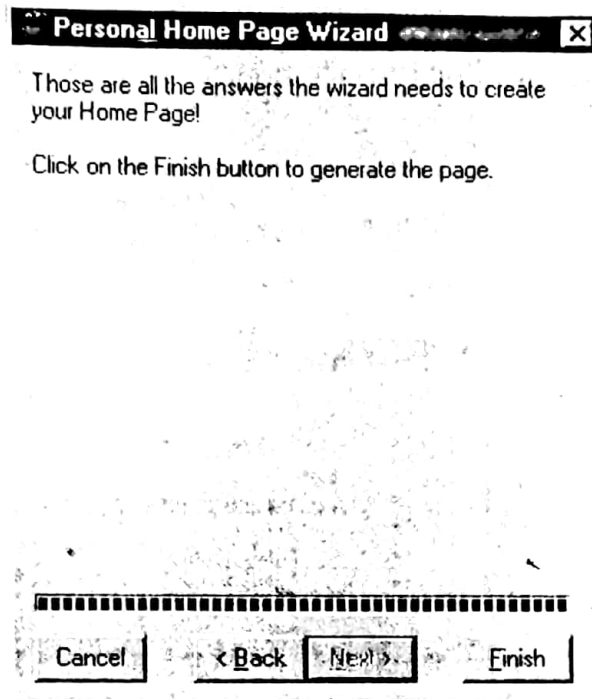


Figure 12

37. **Click on 'Finish'.**  
This generates the page shown in Figure 13.

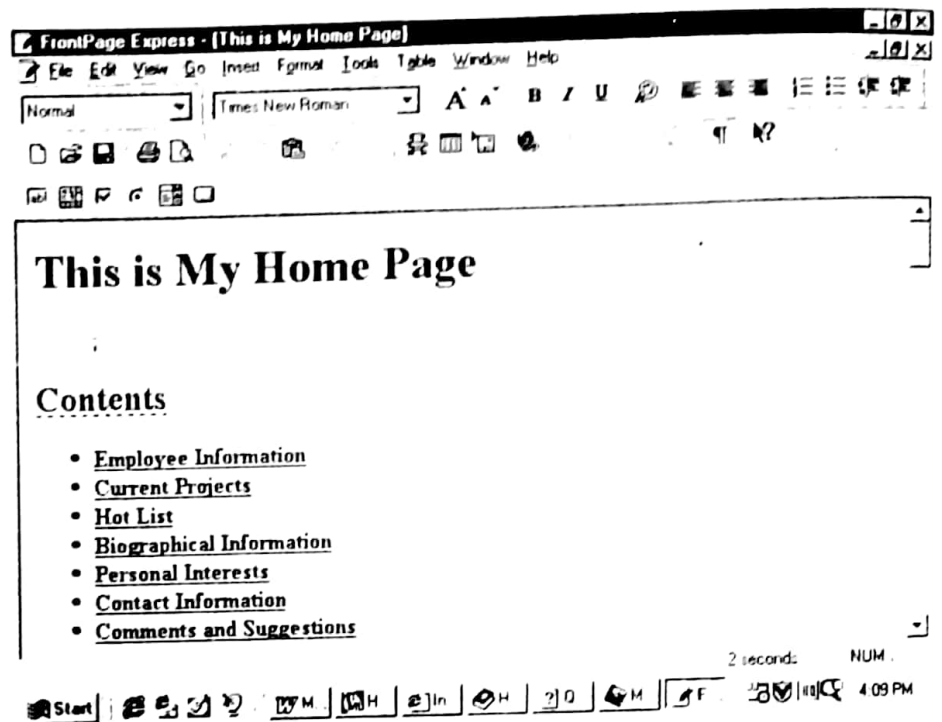


Figure 13

38. Save the file as 'c:\aptech\index.htm'.

Each bulleted point is a link to a section on this page. The page is to be completed by filling in details in all sections.

The page has Wizard generated comments all throughout. You will use these comments as a guideline while filling up the pages.

This will be the exercise for this lab session.

### 3.2 Some Tips and Tricks

In this section you will learn about two interesting features of the Microsoft FrontPage Express.

➡ Comments

➡ Special Symbols

#### 3.2.1 Comments

Often we need to introduce comments as a part of the HTML code. These comments will not be visible on the page but will be a part of the HTML code.

To insert a comment :

1. Invoke Microsoft FrontPage Express.
2. Open the file 'c:\aptech\applet.htm'. Refer Figure 14
3. Scroll to the end of the page.
4. Press <Enter> key.

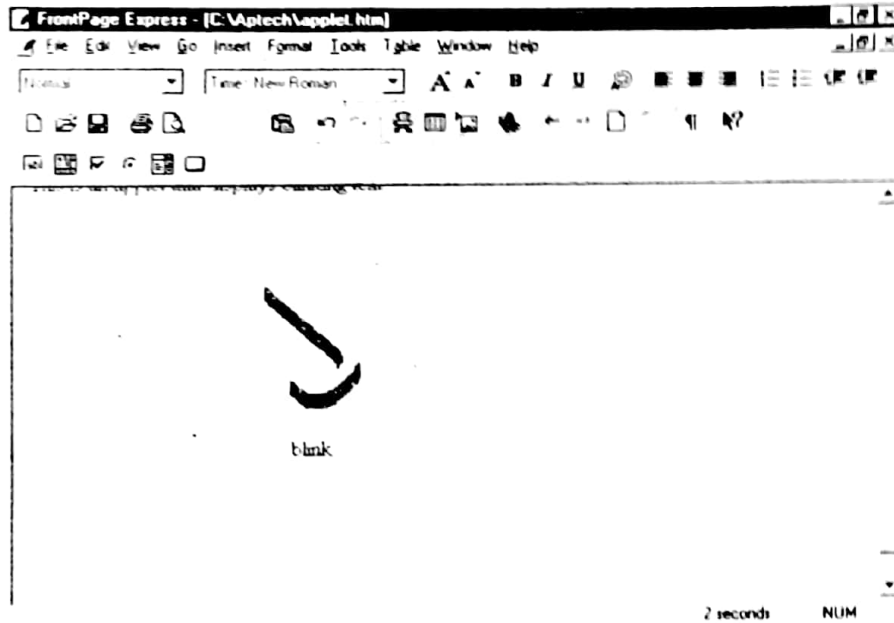


Figure 14

5. Click on the menu option 'Insert'.

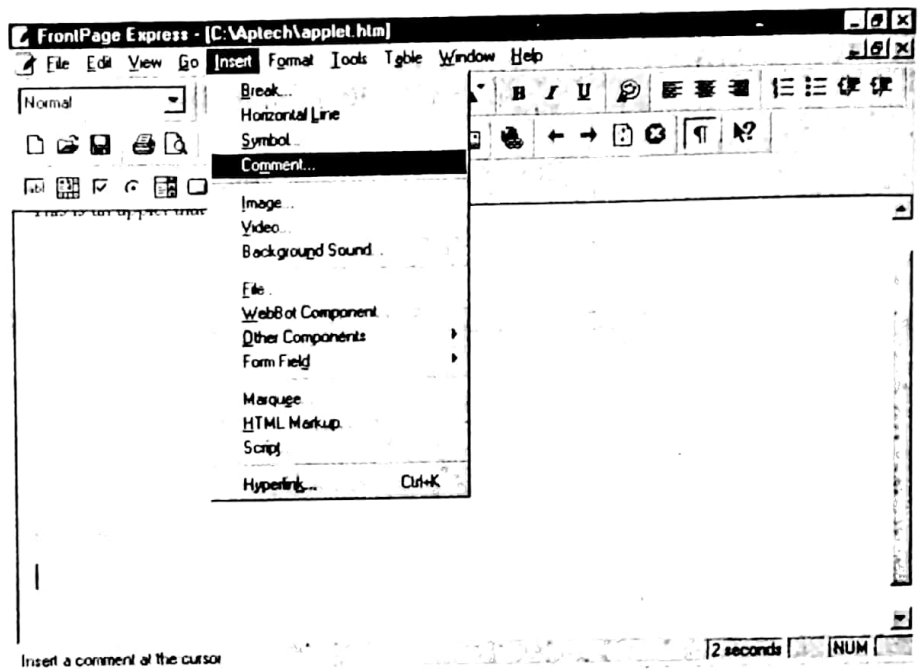


Figure 15

6. Click on the sub option 'Comment...'.  
This displays the dialog 'Comment'.
7. Type 'This is out first comment'.  
Refer Figure 16.

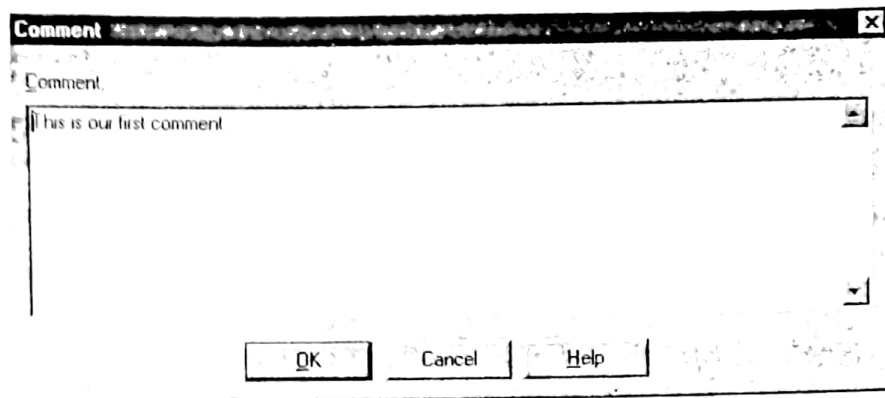


Figure 16

8. Click on the 'OK' button.  
The comment is displayed at the bottom of the page. Refer Figure 17.

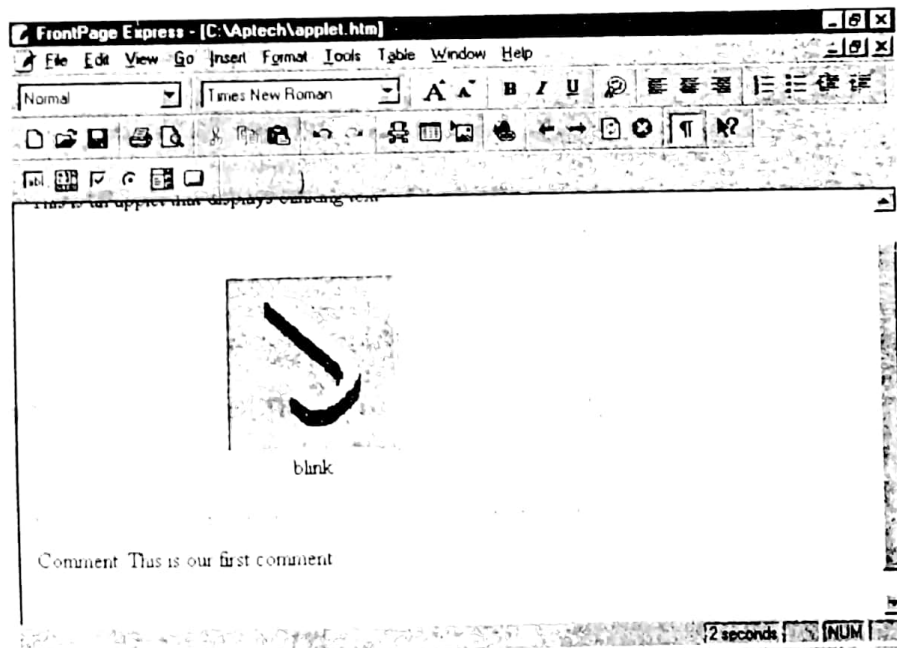


Figure 17

9. Save the page.
10. Close the page.
11. View the page in Microsoft Internet Explorer.  
The page does not display the text of the comment. Refer Figure 18.

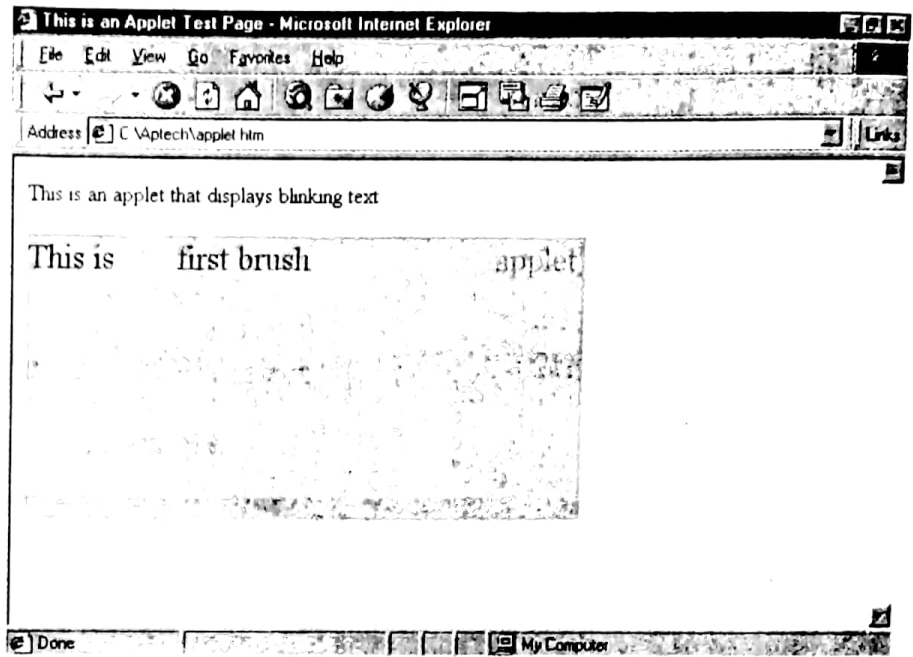


Figure 18

12. Exit Microsoft Internet Explorer.
13. Open the file '*c:\aptech\applet.htm*'.
14. View the HTML code.

Consider the lines :

```
<p><!--webbot bot="PurpleText" preview="This is our first
comment" --></p>
```

A comment in HTML is written as :

```
<!--"This is the Text of the Comment" -->
```

15. Close the dialog 'View or Edit HTML.'
16. Close the file.

### 3.3 Special Symbols

To insert special characters in an HTML page follow these steps.

1. Place the cursor at the point where the special character is to be displayed.
2. Click on the menu option 'Insert'.

Lab Guide 3

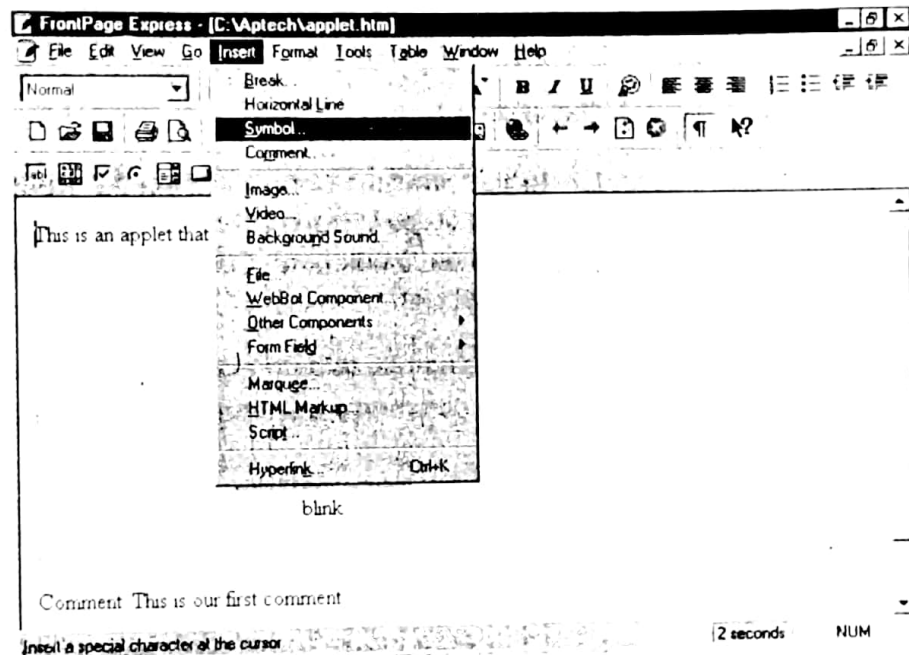


Figure 19

3. Click on the sub option 'Symbol...'.  
This displays the dialog 'Symbol'. Refer Figure 20.

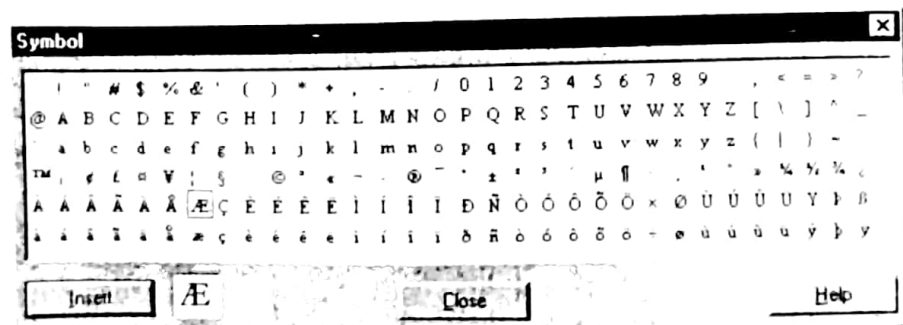


Figure 20



4. **Select the required symbol.**  
The selected symbol is displayed at the bottom of the dialog.
5. **Click on 'Insert' to place the symbol in the page.**
6. **Place as many symbols as are needed.**
7. **Click on 'Close' to close the dialog.**
8. **View the page in Microsoft Internet Explorer.**

**The Next 1 Hour :**

1. In the previous hour you created a page using the **Personal Home Page Wizard** of FrontPage Express. This page has been saved as 'index.htm'. Complete this page by filling in details in all sections.

The page has Wizard generated comments all throughout. Use these comments as a guideline while filling up the pages.

### SESSION OBJECTIVES

*At the end of this session, the student will be able to –*

- Insert Tables
- Set table characteristics such as border and background
- Set headers
- Give the table a caption
- Use Applets

The steps given in the session are detailed, comprehensive and carefully thought through. This has been done so that the learning objectives are met and the understanding of the tool is complete. Please follow these steps carefully.

#### **The First 1 Hour :**

##### **4.1 Tables**

---

We will now create the following table in HTML :

Tag	Use
<U>....</U>	Underline
<STRIKE>...</STRIKE>	Strikethrough
 	Line break

1. Invoke Microsoft FrontPage Express.
2. Type the following text in the page :

The following table lists some HTML tags and their use :

3. Press <Enter>.
4. Click on the menu option 'Table'.  
Refer Figure 1.

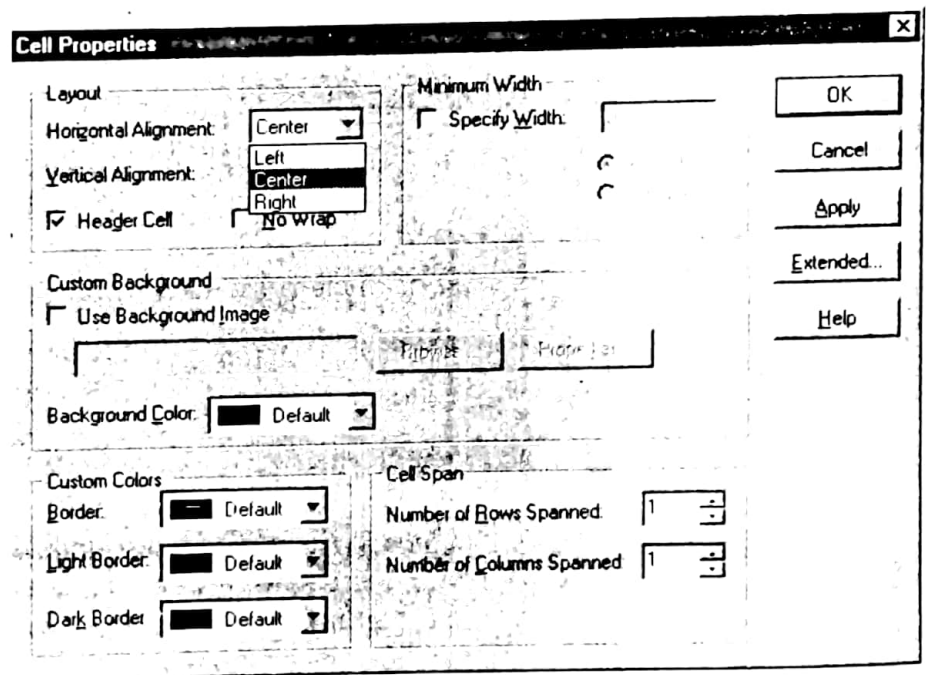


Figure 1

5. Click on the sub menu option 'Insert Table...'.  
This displays the dialog 'Insert Table'. Refer Figure 2.

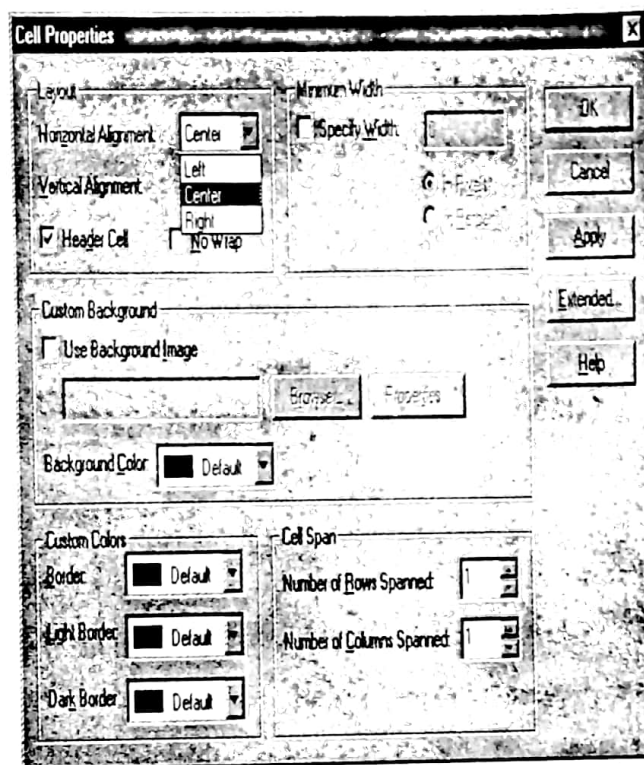


Figure 2

6. Set 'Rows' to 4.
7. Set 'Alignment' to 'Center'.  
Refer Figure 3.

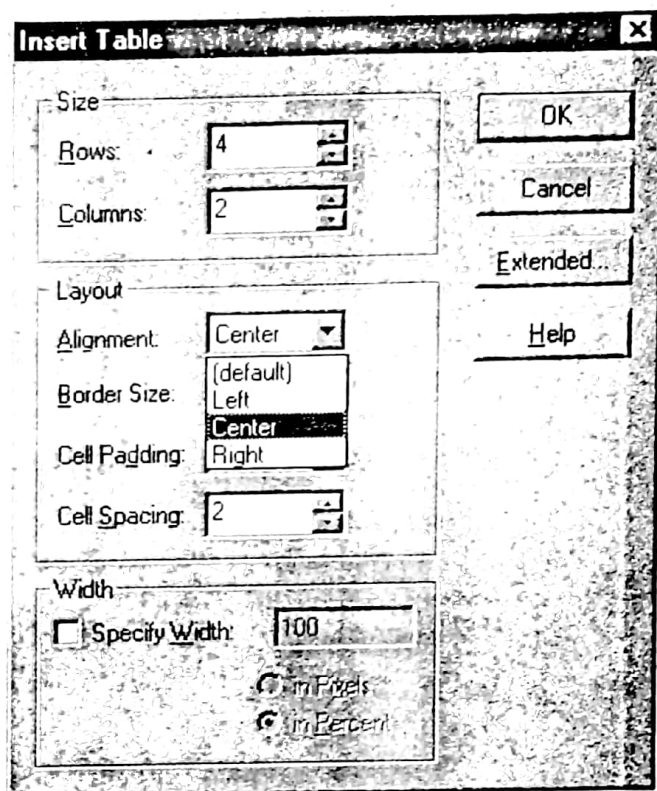


Figure 3

8. Set 'Border Size' to 1.
9. Click on 'OK'.  
This inserts a 4x2 table in the HTML document. Refer Figure 4.

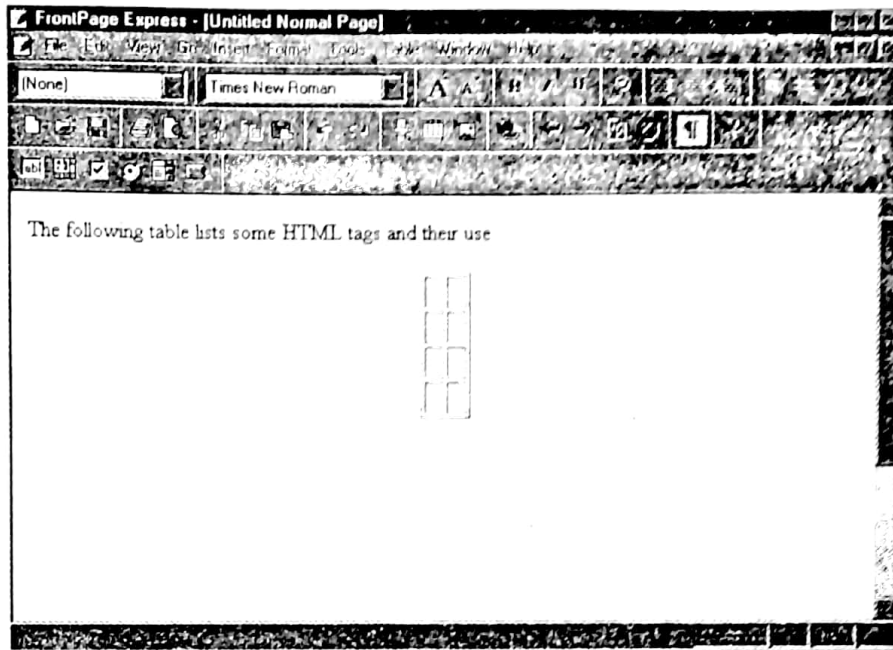


Figure 4

10. Type in the contents of the following table :  
The width of the cells increases to fit the text. Refer Figure 5.

Tag	Use
<U>....</U>	Underline
<STRIKE>...</STRIKE>	Strikethrough
 	Line break

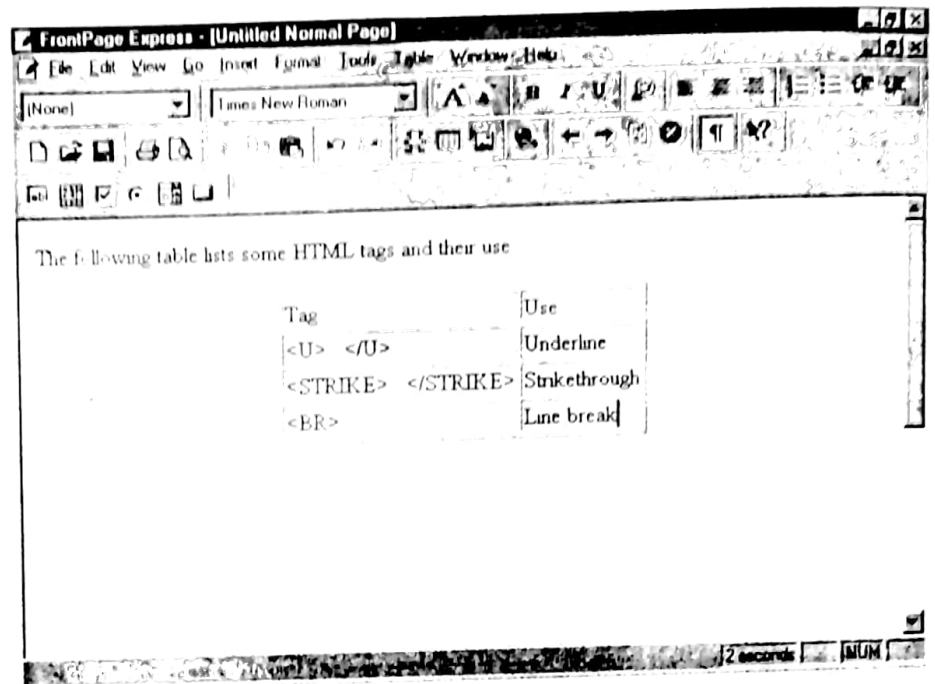


Figure 5

11. Save the file as 'c:\aptech\table.htm' with title as 'Tables in HTML'.

#### 4.2 An Explanation

1. View HTML code.
2. Consider the lines :

```
<center>

<table border="1">
    <tr>
        <td>Tag</td>
        <td>Use</td>
    </tr>
    <tr>
        <td>&lt;U&gt;...&lt;/U&gt;</td>
```

<td>Underline</td>
</tr>
<tr>
<td>&lt;STRIKE&gt;...&lt;/STRIKE&gt;</td>
<td>Strikethrough</td>
</tr>
<tr>
<td>&lt;BR&gt;</td>
<td>Line break</td>
</tr>
</table>
</center>



#### 4.2.1 The Tags <CENTER>...</CENTER>

Text included between the tags <CENTER>...</CENTER> will be displayed as centered horizontally in the page.

#### 4.2.2 The Tags <TABLE>...</TABLE>

All elements of a table are included between the tags of <TABLE>...</TABLE>. The tag <TABLE> signals the start of the table while </TABLE> marks the end of the table.

The attribute BORDER is used with the tag <TABLE> to specify the thickness of the table border. If the attribute BORDER is not set then the table has no border.

#### 4.2.3 The Tags <TR>...</TR>

Each row in a table is enclosed between the tags <TR>...</TR>. These tags are used within the tags <TABLE>...</TABLE>.

For example :

```
<TABLE BORDER = 1>
<TR>SomeRowDetails</TR>
<TR>SomeRowDetails</TR>
</TABLE>
```

*- equivalent to  
for table*

indicates a table with two rows.



#### 4.2.4 The Tags <TD>...</TD>

The tags <TD>...</TD> are used with the tags <TR>...</TR> to define the cells in each row. The text enclosed within these tags is included in a cell.

For example, the HTML code :

```
<table border="1">
<tr>
  <td>Cell 11</td>
  <td>Cell 12</td>
  <td>Cell 13</td>
</tr>
<tr>
  <td>Cell 21</td>
  <td>Cell 22</td>
  <td>Cell 23</td>
</tr>
</table>
```

defines a two row, four column table of the type :

Cell 11	Cell 12	Cell 13
Cell 21	Cell 22	Cell 23

#### 4.2.5 Special Characters and HTML

Characters such as '<', '>' and '&' have their own use in HTML. For example, '<' and '>' are used to enclose tag names. Thus, when we need to display characters such as '<' in the body of the text, we need to use special notations.

The following table holds a list of characters and corresponding notations.

Character	Notation
<	&lt;
>	&gt;
&	&amp;
"	&quot;
&#163	≤
&#165	∞
&Eacute	í
&Egrave	í



3. Click on the button 'OK' of the dialog 'View or Edit HTML'.

### 4.3 Some Enhancements

1. Click in any cell of the table.
2. Click on the menu option 'Table'.  
Refer Figure 6.

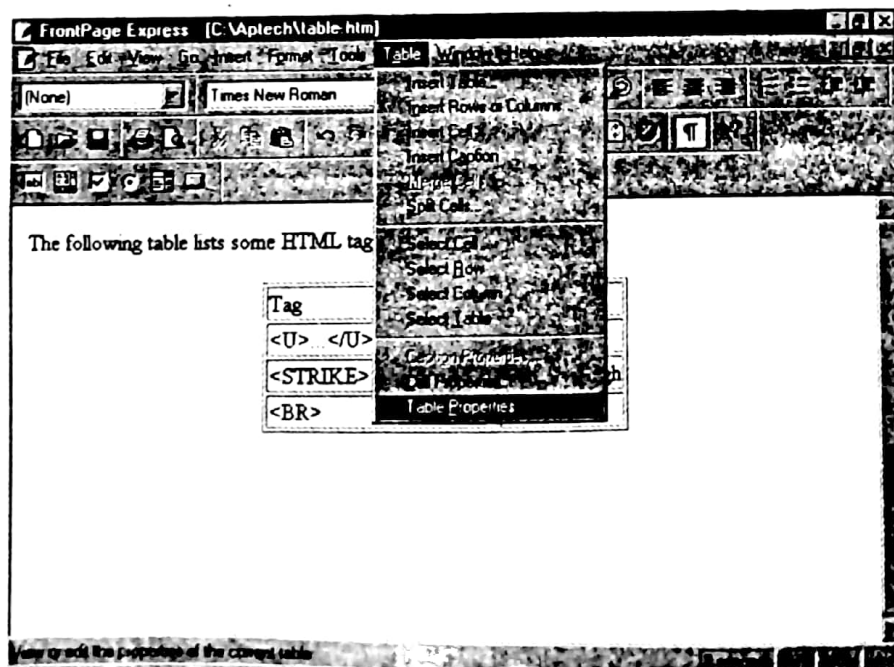


Figure 6

3. Click on the sub option 'Table Properties...'  
This brings up the dialog 'Table Properties'.
4. Set 'Background Color' to 'Silver'.
5. Set 'Light Border' to 'Gray'.
6. Set 'Dark Border' to 'Gray'.  
Refer Figure 7.

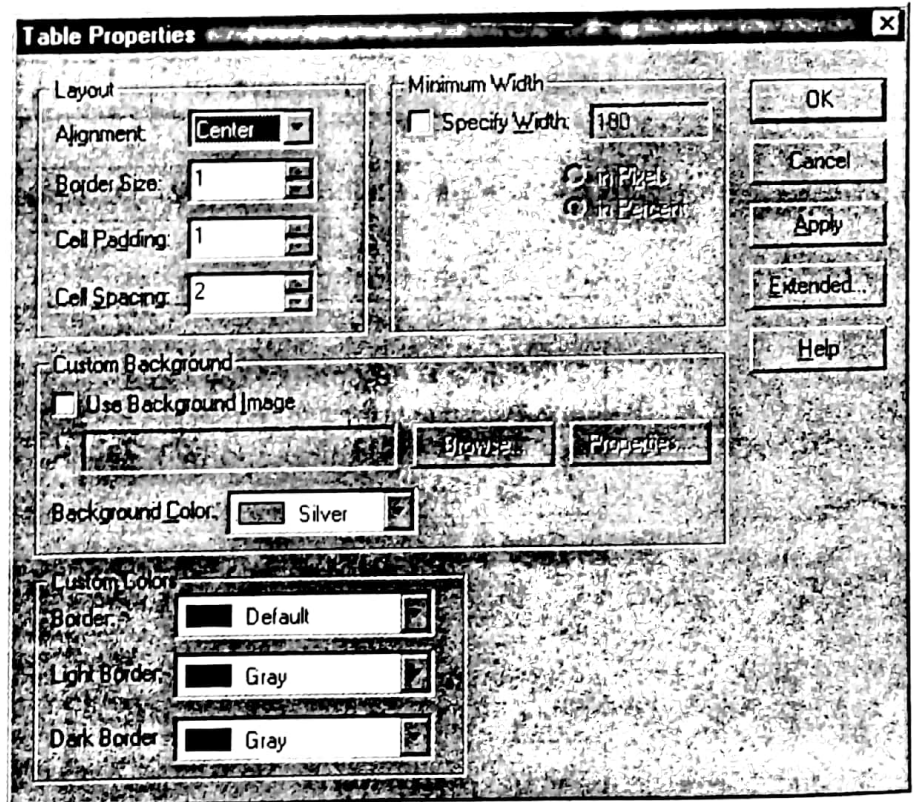


Figure 7

7. Click on 'OK'.  
This displays the table with the selected properties applied.  
Refer Figure 8.

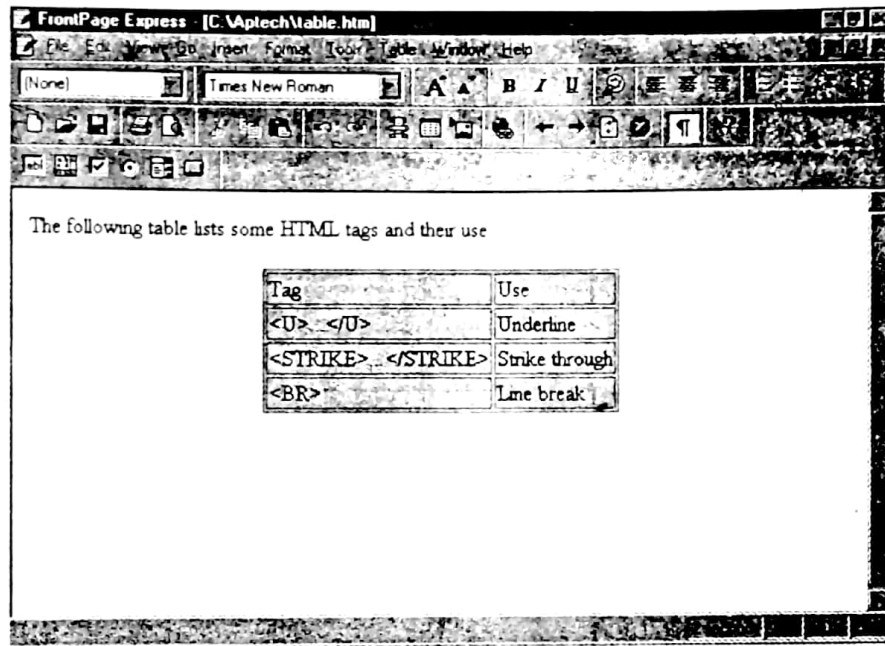


Figure 8

#### 4.4 An Explanation

1. View the HTML code.
2. Consider the line :

```
<table border="1" bgcolor="#C0C0C0"
bordercolordark="#808080" bordercolorlight="#808080">
```

The various selected properties have been set as attributes to the tag <TABLE>.

3. Click on the button 'OK' of the dialog 'View or Edit HTML'.

#### 4.5 Some More Enhancements to the Table

##### 4.5.1 Header Row

In this section, we will designate the first row as a header row :

1. Click in any cell of the first row.
2. Click on the sub menu option 'Select Row'.  
Refer Figure 9.

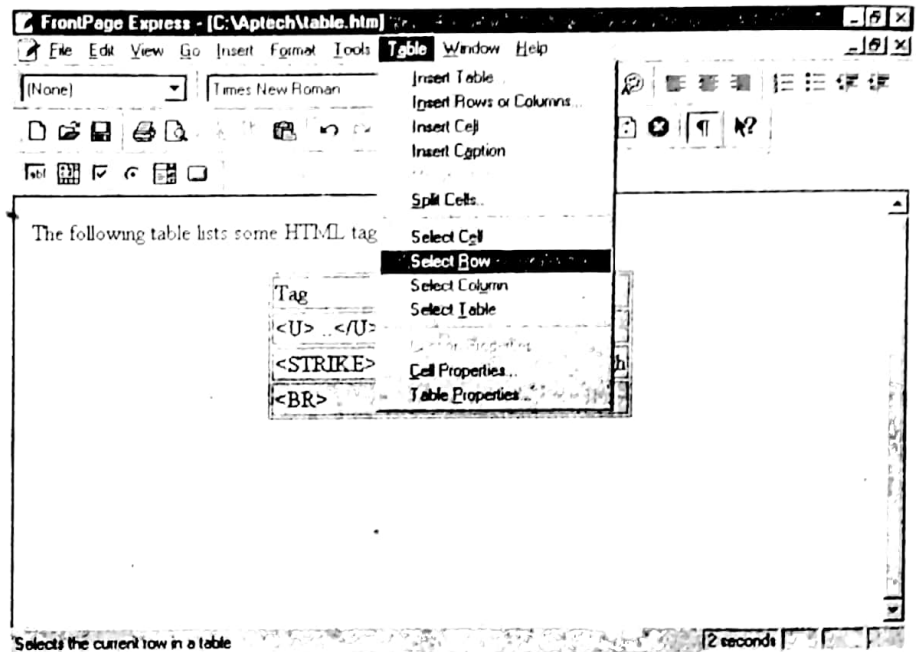


Figure 9

3. Click on the menu option 'Table'.
4. Click on the sub option 'Cell Properties...'.  
This displays the dialog 'Cell Properties'.
5. Select the option 'Header Cell'.
6. Select 'Center' as the 'Horizontal Alignment'.  
Refer Figure 10.

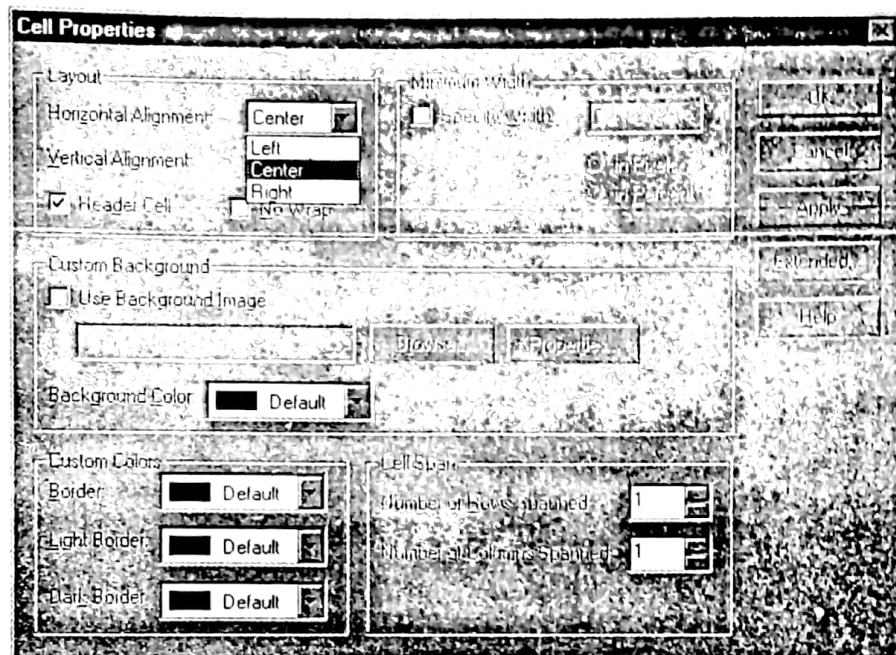


Figure 10

7. **Click on 'OK'.**  
This displays the text in first row in bold and centered. Refer Figure 11.

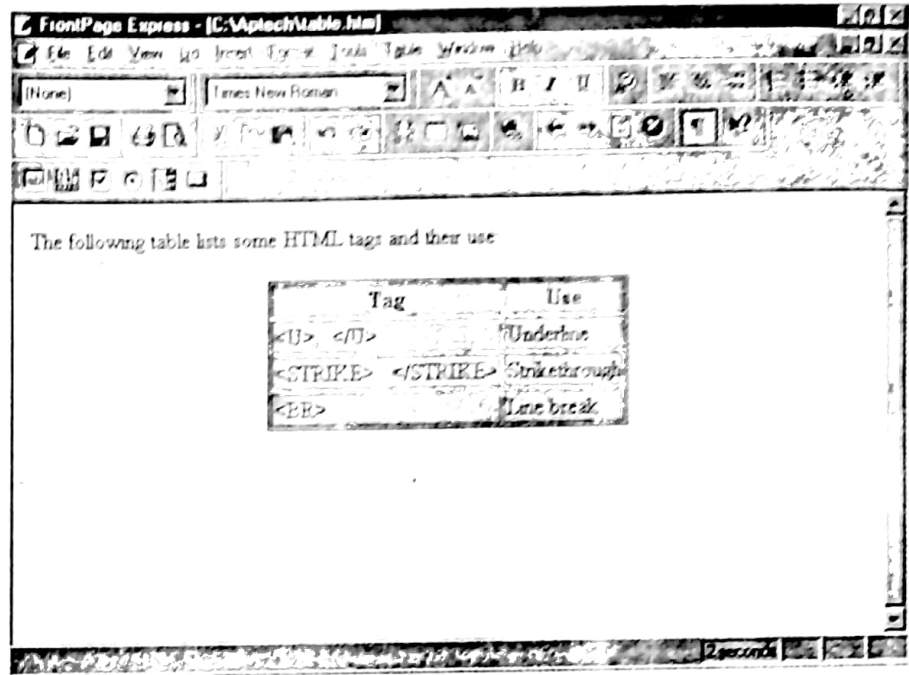


Figure 11

#### 4.5.2 An Explanation

1. View the HTML code.
2. Consider the lines :

```
<tr>
    <th>Tag</th>
    <th>Use</th>
</tr>
```

The cells in the header row use the tags <TH>...</TH> instead of <TD>...</TD>.

3. Click on the button 'OK' of the dialog 'View or Edit HTML'.

### 4.5.3 Caption

Table caption is a row in the table that acts as the title for the table.

1. Click in any cell of the table.
2. Click on the menu option 'Table'.
3. Click on the sub option 'Insert Caption'.  
This inserts an area for the caption at the top of the table.
4. Type '*Some HTML Tags*' in the caption area.  
Refer Figure 12.

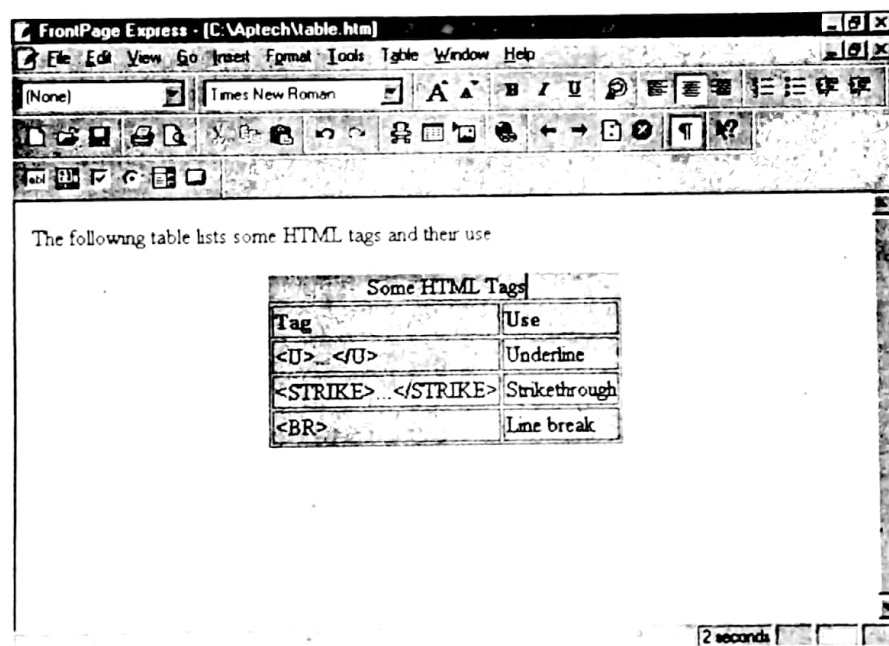


Figure 12

### 4.5.4 An Explanation

1. View the HTML code.
2. Consider the line :

```
<caption align="top">Some HTML Tags</caption>
```



#### 4.5.5 The Tags <CAPTION>...</CAPTION>

Text to be used as the table caption is enclosed between the tags <CAPTION>...</CAPTION>. The attribute ALIGNMENT indicates whether the text is to be displayed at the top or bottom of the table.

3. Click on the button 'OK' of the dialog 'View or Edit HTML'.

#### 4.5.6 Changing Caption Location

1. Click anywhere in the caption of the table.
2. Click on the menu option 'Table'.
3. Click on the menu option 'Caption Properties...'. This displays the dialog 'Caption Properties'.
4. Select the option 'Bottom of Table'. Refer Figure 13.

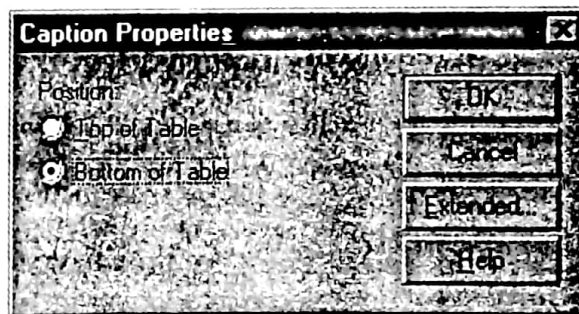


Figure 13

5. Click on 'OK'. The caption is displayed at the bottom of the table. Refer Figure 14.

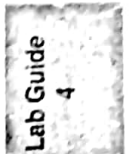
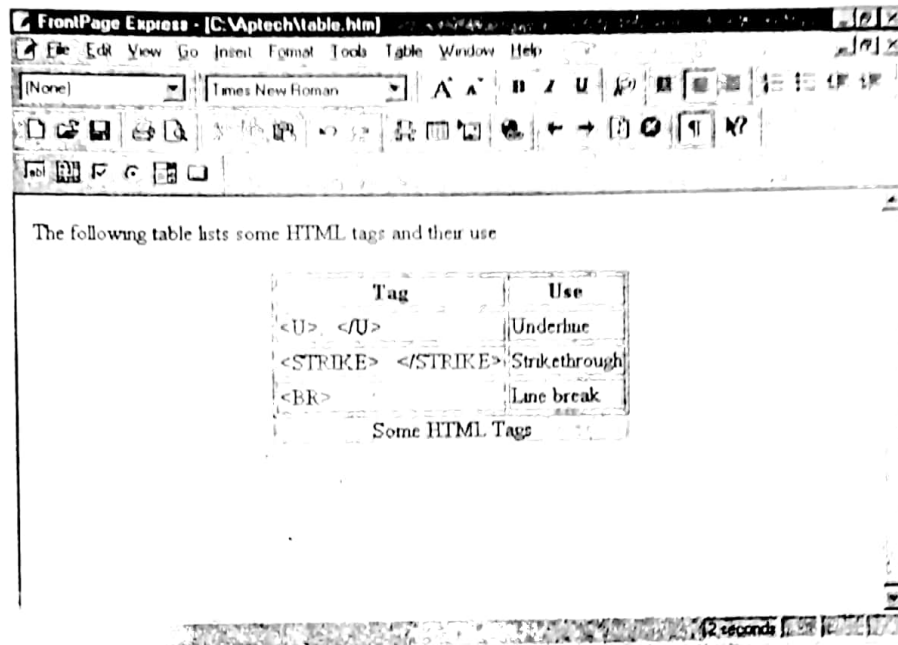


Figure 14

- To format the text of the caption, select the text and use the option 'Font...' under the main menu option of 'Format'.

6. Save the file.
7. Close the file.

#### 4.6 Using Applets

1. Create a new page.
2. Type in the following text :

This is an applet that displays blinking text.

3. Save the file as '*c:\aptech\applet.htm*' with the title '*This is an Applet Test Page*'.

#### 4.6.1 To Add an Applet

1. Click on the menu option 'Insert'.
2. Click on the sub option 'Other Components'.  
This displays a new sub menu.

Refer Figure 15

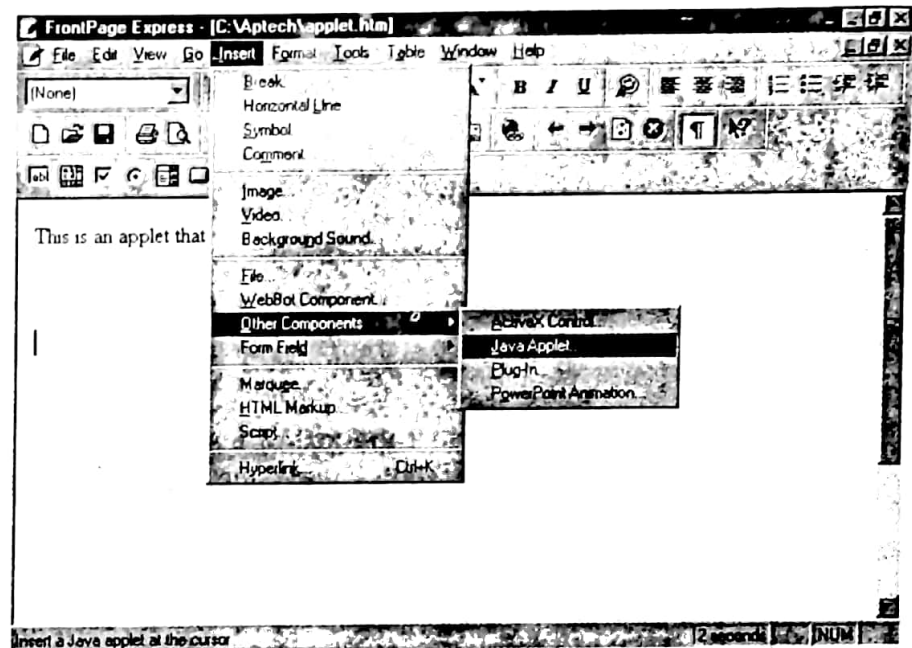


Figure 15

3. Click on the option 'Java Applet...'.  
This displays the dialog 'Java Applet Properties'.
4. Type the word '*blink*' as the 'Applet Source'.  
  
'blink.class' is the Java applet file that we are using.
5. Type in '*This is our first brush with a Java applet*' as the 'Message for Browsers without Java Support:'

Refer Figure 16.

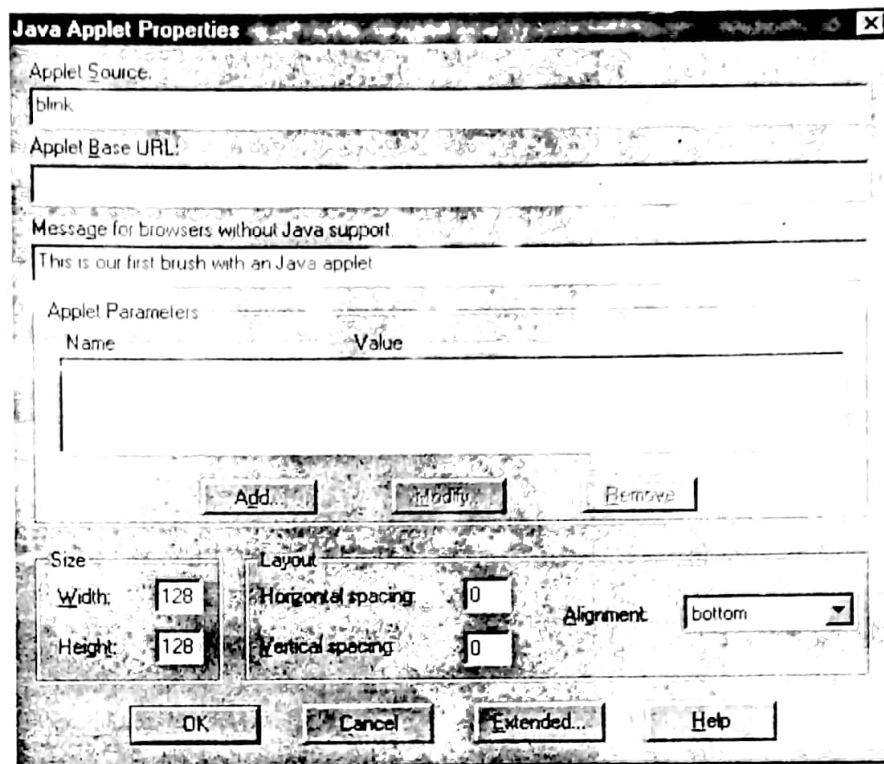


Figure 16

6. Click on the button 'Add...'.  
This displays the dialog 'Set Attribute Value'.
7. Specify 'lbl' as the 'Name'.
8. Specify '*This is our first brush with an Java Applet*' as the 'Value'.  
Refer Figure 17.

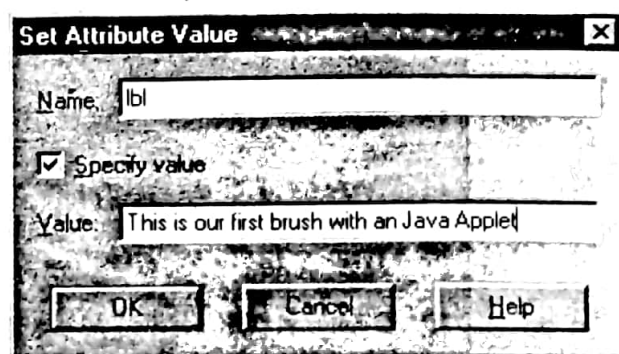


Figure 17

9. Click on 'OK'.

The parameter and its value are displayed in the dialog 'Java Applet Properties'. Refer Figure 18.

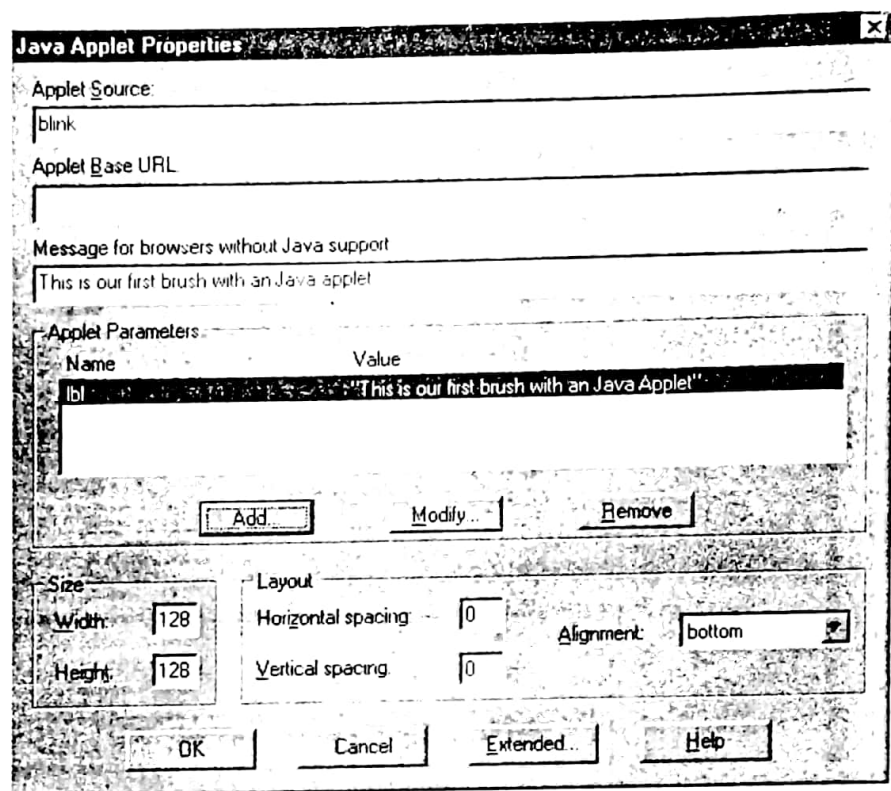


Figure 18

10. Click on the button 'Add...'.

This displays the dialog 'Set Attribute Value'.

11. Specify 'speed' as the 'Name'.

12. Specify '3' as the 'Value'.

13. Click on 'OK'.

14. Type in '400' as 'Width'.

15. Type in '200' as 'Height'.

16. Click on 'OK' of the 'Java Applet Properties'.

This adds the Java applet to the page. Refer Figure 19.

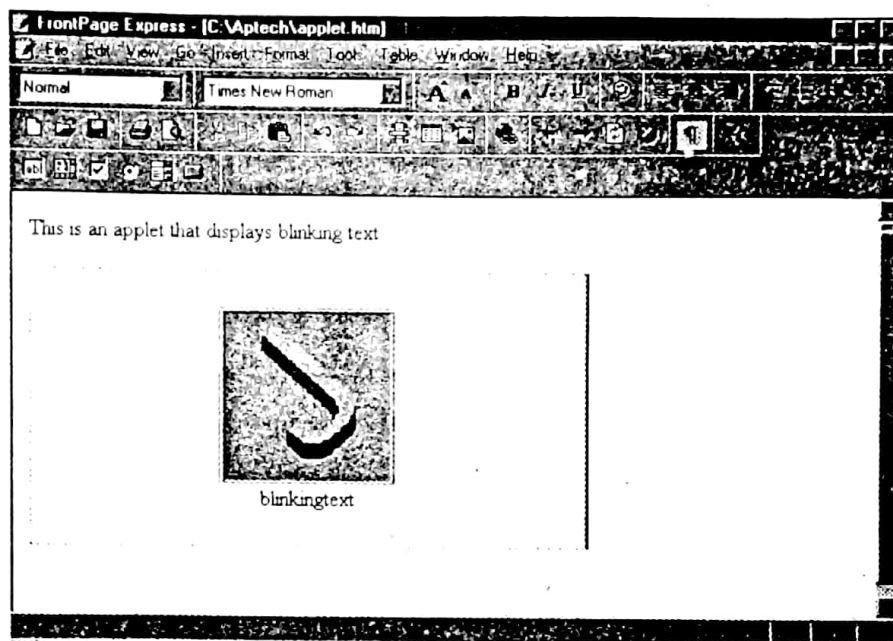


Figure 19

17. **Save the file.**
18. **Close the file.**
19. **Invoke Microsoft Internet Explorer.**
20. **Open the file 'c:\aptech\applet.htm'.**  
The page displays text that blinks. Refer Figure 20.

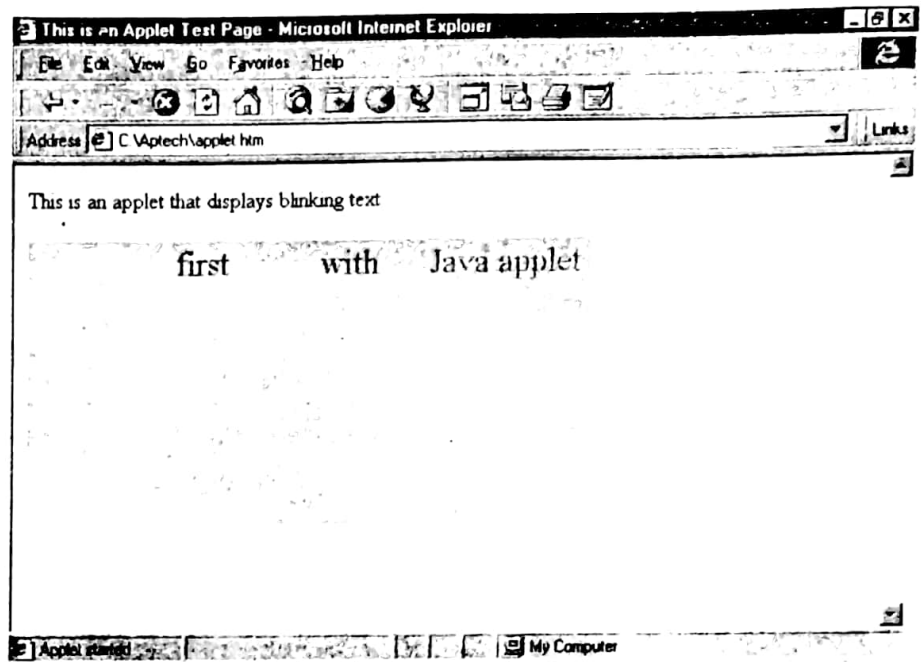


Figure 20

#### 4.7 An Explanation

1. View the HTML code.
2. Consider the following lines of code :

```
<applet code="blink"align="baseline" width="400" height="200">  
<param  
name="lbl" value="This is our first brush with an Java applet">  
  
<param  
name="speed" value="1">  
This is an applet that displays blinking text.</applet>
```

#### 4.7.1 The Tag <APPLET>...</APPLET>

The tag <APPLET> is used to insert Java Applets into a Web page.

Java Applets are files with an extension '.class'. The attribute CODE of the tag <APPLET> is used to specify the name of the Java applet file.

code="blink"

means that the applet to be used is 'blink.class'. The attributes WIDTH and HEIGHT are used to specify the display size for the applet.

An applet can be customised using its parameters. Parameters of an applet let us pass information to the applet. 'blink.class' has two parameters :

➡ lbl – The text to be displayed.

➡ speed – The rate of blinking.

To pass values to the applet's parameters, we use the attribute PARAM. We have to specify the name of the parameter and the value it is to be assigned.





*done successfully*

### The Next 1 Hour :

1. Design a page as the one shown below in Figure 21.

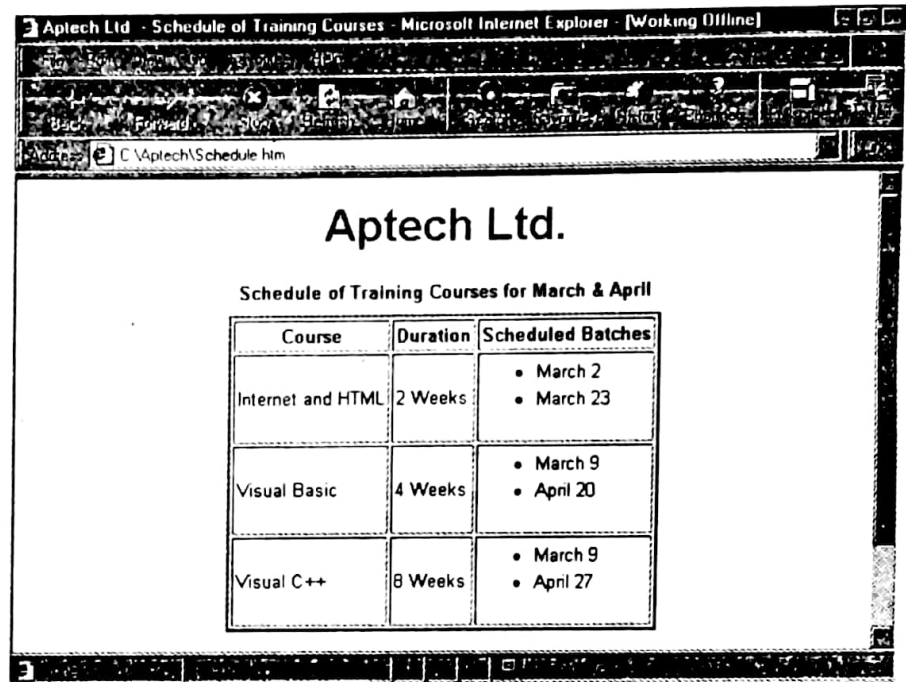


Figure 21

2. Add the information shown in Figure 22 to the bottom of the above page :

- Using the style 'Heading 3' for **Prerequisites**.
- The user must be able to send mail by clicking either on the image of the mailbox or on the text 'info@aptech.com'.

*Images can also be given hyperlinks just like text.*

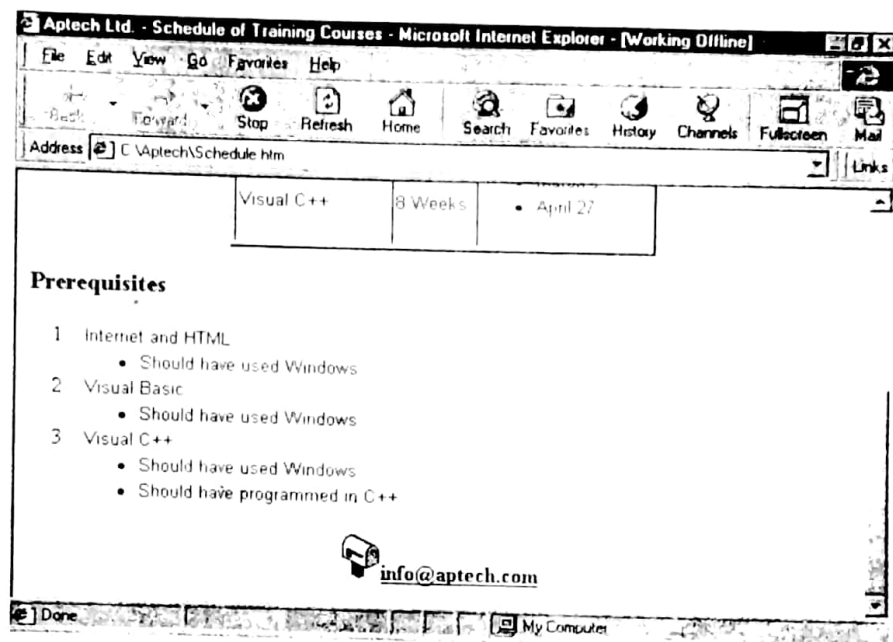


Figure 22



***This page has been intentionally left blank***



## SESSION

# 1



This OLTL session is dedicated to a project.

1. Open the file, **index.htm** from **C:\9905olt\labdel\int&html\oltl-proj**. It lists four hobbies. Refer Figure 1. The bullets here are pictures provided in a separate file.

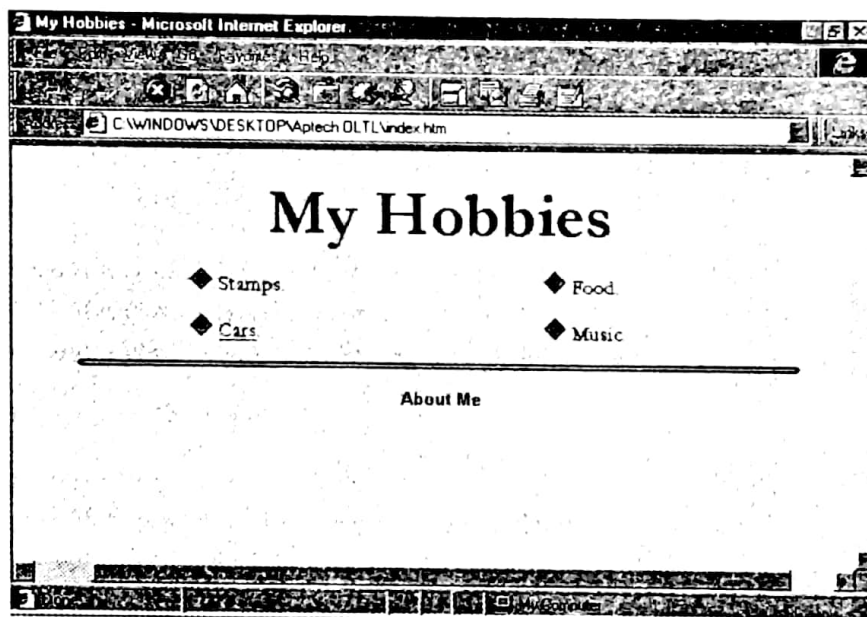
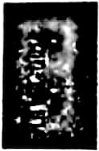


Figure 1

We have created a link for the Car hobby. Clicking on this word, moves us to the page **[cars.htm](#)** which displays our favourite cars. Clicking on the name of the car scrolls us to the picture of the car in the same page. Refer Figure 2.



## My Dream Cars

Here are some cars I would love to have

◆ [Porsche Boxster](#)

◆ [Mercedes Benz CLK](#)

---

### Porsche Boxster

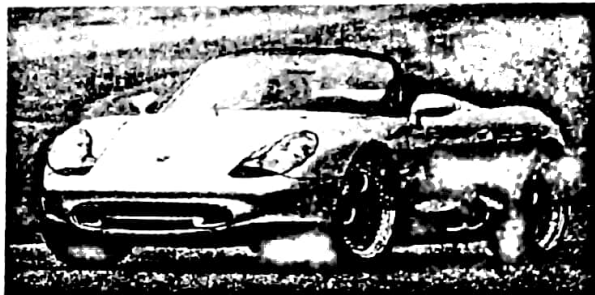


Figure 2

2. Create three other pages for the other hobbies each. The hobbies mentioned in **index.htm** are suggestions. Use any hobbies that you wish. Create links to these pages from **index.htm**.
3. Also create a page about yourself and link it to **About Me** on **index.htm**.

***All required pictures have been provided.***

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## APPENDIX

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## Appendix - Internet and Web Page Designing

TAG	USE
<A> ... </A>	Creating links and bookmarks <i>or anchors</i>
<APPLET> ... </APPLET>	Placing a Java applet in the Web page
<B> ... </B>	Formats the text to bold
<BODY> ... </BODY>	The text between these tags forms the main body of the HTML page
 	Line break
<CAPTION> ... </CAPTION>	Defines text that is to be used as caption for the table
<CENTER> ... </CENTER>	Centers the text horizontally within the page
<EM> ... </EM>	Italicizes the text. Same effect as <I> ... </I>
<FONT> ... </FONT>	Sets the font and its characteristics
<H1> ... </H1>	Formats the text to the default style of Heading 1
<H2> ... </H2>	Formats the text to the default style of Heading 2
<H3> ... </H3>	Formats the text to the default style of Heading 3
<H4> ... </H4>	Formats the text to the default style of Heading 4
<H5> ... </H5>	Formats the text to the default style of Heading 5
<H6> ... </H6>	Formats the text to the default style of Heading 6
<HEAD> ... </HEAD>	All information that forms the header of the HTML page is placed here
<HR>	Places a horizontal line in the page
<HTML> ... </HTML>	Defines the start and end of the HTML page



TAG	USE
<I> ... </I>	Formats the text to italics
<IMG>	Places an image in the Web page
<LI>	Marks the text as a list item
<MARQUEE> ... </MARQUEE>	Place a marquee in the page. Can be used only with Internet Explorer
<OL> ... </OL>	Used to create a numbered list
<P>	Paragraph break
<PARAM>	Used with the tag <APPLET> to define the applet's parameters
<STRONG> ... </STRONG>	Formats the text to bold. Same effect as <B> ... </B>
<TABLE> ... </TABLE>	Defines a table
<TD> ... </TD>	Defines a cell in the table
<THEAD> ... </THEAD>	Defines the table header
<TR> ... </TR>	Defines a row in the table
<U> ... </U>	Underlines the enclosed text
<UL> ... </UL>	Defines an unordered list

# Logic Building with C

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## INTRODUCTION TO THE MODULE

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The module **Logic building with C** is intended for students who do not have any experience in programming. Before learning any computer language it is necessary to have sound knowledge of the concepts involved and the different ways of tackling a problem.

We have attempted to make the material presented comprehensive, concise and practical. Confidence and competency in programming are the result of rigorous practice. The more programs we write, the sooner we progress to greater heights.

This module is divided into six chapters. Each chapter introduces a new feature of programming as well as guidelines to be followed along with algorithm development. Throughout the module we emphasise on program readability because we believe that programs should be easily read and understood either by the person who writes it or by somebody else.

We use the programming language C to implement the techniques learnt in this module. This language is attracting considerable attention worldwide because the software industry is adopting the language to great advantage. Programs written in C are fast and efficient. This versatility makes C a desirable language.

Good luck and hope you enjoy the course.

Design Team, H.O. New Jersey USA

**APTECH**

COMPUTER EDUCATION

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